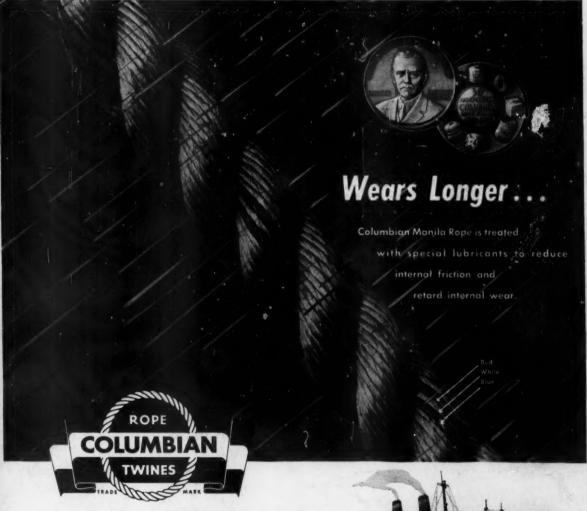
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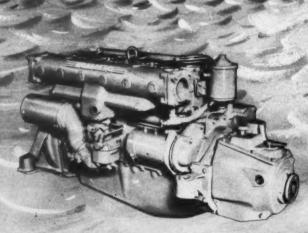
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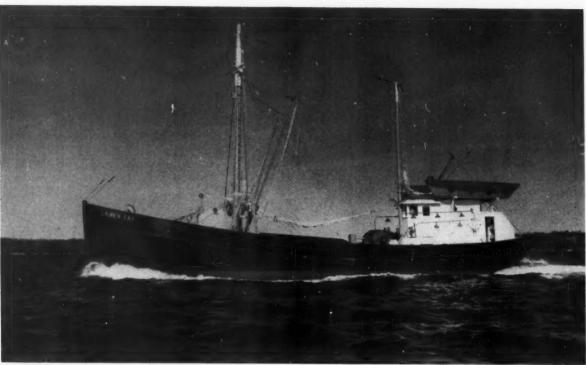
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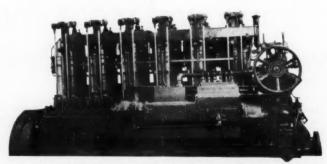
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Editorial

Exploratory Investigations Aid Industry

Exploratory fishing investigations high-lighted the annual report of the U. S. Fish & Wildlife Service for the fiscal year 1952, made public this month by Director Albert M. Day.

"Accomplishments in the fields of exploration, develops ment, and utilization of the Nation's commercial fishery resources have been varied and substantial during the past year," Day declared. As an example he cited the promising results that have been obtained from the New England bluefin tuna exploratory fishing survey. Large catches of choice 25- to 50-pound tuna, made with purse-seine gear, have demonstrated good commercial potentialities. Further investigations are being made with long-line gear and trammel nets.

The vessel *Oregon*, engaged in shrimp investigations in the Gulf of Mexico, expects to finish its preliminary survey early in 1953. Large schools of blackfin tuna have been observed during the Summer months, indicating a potential fishing area in the Gulf.

On the Atlantic Coast, a study of electronic aids for locating commercial schools of fish was started aboard the research vessel *Bowdoin*. Exploration for little tuna, in cooperation with the industry, in South Atlantic coastal waters has demonstrated that quantities of this species are to be found in that area. Catching techniques, however, need to be given further attention before the resource can be utilized.

Commercial-scale tests of the new method of freezing whole fish at sea were carried out on the research trawler Delaware. Immediately after being caught, the fish were frozen in brine for later thawing, filleting, and refreezing of fillets ashore. Previous laboratory tests show the superiority of fish fillets prepared from whole fish frozen at sea over fillets from fish iced at sea in the normal commercial manner.

In a 3-year search for methods to control the sea lamprey in the Great Lakes, emphasis has shifted from mechanical to electrical devices. Experiments in 1951 with electrical devices showed that they can divert, trap, or destroy all adult lampreys migrating upstream to spawn. Electrical devices are now being operated in six streams that differ greatly in volume, depth and quality of water. Feeding experiments have confirmed that the length of the parasitic phases of the lamprey's life cycle in Lake Huron is 1 to 1½ years.

The valuable aid being rendered to the fishing industry by the Fish & Wildlife Service research programs is receiving increased recognition. Whereas in past years many commercial fishermen considered Fish & Wildlife personnel as scientists with theoretical ideas, today there is a growing appreciation for the practical applications of their findings.

It is generally realized now that successful fishing is not merely a matter of luck, and that scientific factors have an important bearing on the fish supply. Formerly, many fishermen operated by whims and fancies, and each one had his pet ideas on where and how to fish. Now that it is possible to make underwater photographic studies of fishing grounds and the action of fishing gear in operation, many long-held suppositions are proving to be fallacious.

The success of the F&WS in predicting supplies of fish and in determining the effects of different size nets is conclusively showing fishermen what can be done through the use of scientific knowledge.

The Fish & Wildlife Service program of exploration, development and utilization of commercial fishery resources should be expanded wherever desirable, and adequate funds to carry on this program should be provided. The amount invested in this type of work will be repaid many times over in providing a rich food supply that can be further exploited and indefinitely sustained on a productive and profitable basis.

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Serving the Commercial Fishing Industry on Atlantic Coast, Gulf of Mexico, Great Lakes

VOL. XXXIV FEBRUARY 1953 NO. 1-12

SPECIAL FEATURES

Some Practical Aspects of Electric Fishing	13
Court Decisions Affecting the Fisheries	14
Heavier Landings of Large Haddock Expected	15
"Marise" Chartered for Fisheries Investigation	16
Canada Looks to Expansion of Its Fisheries	17
Commercial Ice Bobbing Is Profitable on Great Lakes	18
Scallopers "Lauren Fay" and "Ruth-Moses" Added	20

NEWS REPORTS

Boston	26	Michigan	28
Cape Cod	19	Mississippi	25
Connecticut	34	New Bedford	26
Delaware	42	New Jersey	43
Florida	25	North Carolina	19
Georgia	30	Rhode Island	22
Gloucester	21	South Carolina	35
Long Island	22	Virginia	27
Louisiana	24	Wisconsin	28
Maine	23		

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Equipment and Supply Trade News	NAME OF TAXABLE PARTY.
Fish Landings for Month of January	
Vineyard Bailings	
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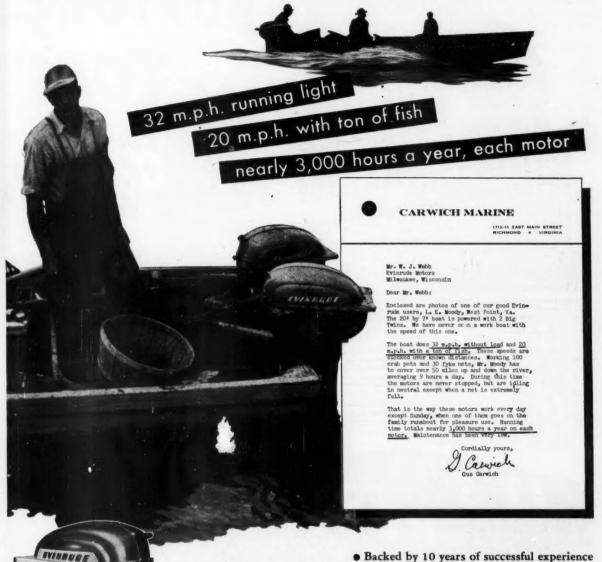
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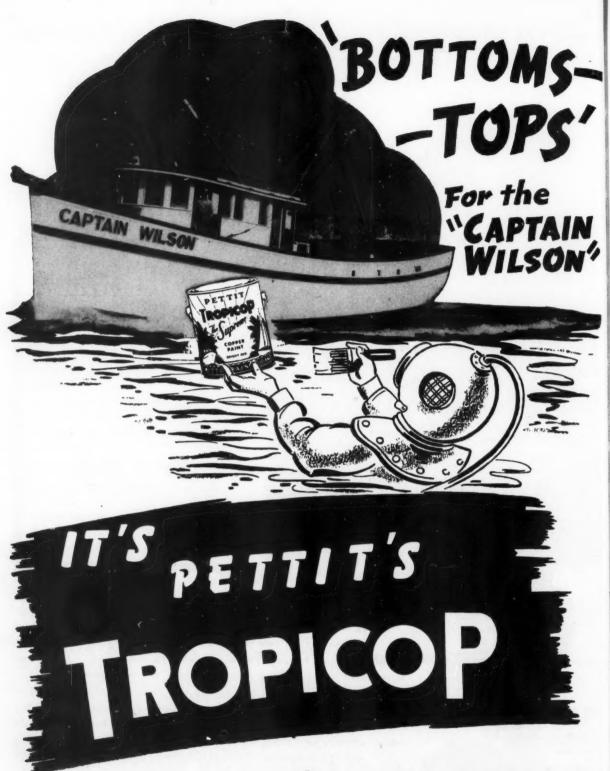
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Sounding-Lead

Quota on low-tariff imports of fresh and frozen groundfish (cod, haddock, hake, pollock, cusk, and ocean perch) fillets for calendar year 1953 is 33,866,287 pounds, as compared to 1952 quota of 31,472,108 pounds. This is 8% over 1952, and 16% greater than 1951. Divided into quarterly quotas, this means that 8,466,572 pounds of groundfish fillets during each quarter may be imported at 1% cents-per-pound rate of duty. Groundfish fillet imports over quarterly quota will be dutiable at the rate of 2½ cents per pound.

Average aggregate apparent annual consumption in United States of fresh or frozen groundfish fillets and steaks in three years preceding 1953 was 225,775,244 pounds, calculated in accordance with General Agree-ment on Tariffs and Trade. This states that the import quota for any current calendar year shall be 15,000,000 pounds or 15 percent of average aggregate apparent annual consumption in three years preceding current year, whichever is greater. The tariff item in summarized form is: "Fish, fresh or frozen (whether or not packed in ice), filleted, skinned, boned, sliced or divided into portions, not specially provided for: cod, haddock, hake, pollock, cusk, and rosefish."

Congressman Bates of Massachusetts plans to ask Tariff Commission to reopen last year's investigation of groundfish fillet imports. Bates said two Republican vacancies now exist on Tariff Commission and soon will be filled by President Eisenhower, increasing prospects for reversal

of earlier ruling.

Budget for Fish and Wildlife Service during 1954 fiscal year, as submitted to Congress by outgoing administration, sets aside \$1,195,789 for Branch of Commercial Fisheries. Present budget is \$1,137,752, making increase of \$58,037 in Branch for coming year. Major gains were in Market News Service, \$30,000; Technological Studies, \$14,175 and Fishery Statistics, \$5,412. An additional \$175,-000 is expected to be transferred from Department of Agriculture for fisheries educational and market development work, same amount as was transferred for this purpose during past several years.

For Branch of Fishery Biology, sum of \$2,501,778 was allocated. The 1954 total allowance was \$210,000 less than 1953 appropriation. The 1954 estimate for clams is \$89,-595; while that for oysters is \$127,300, divided as follows among the various laboratories: Woods Hole, Mass., \$14,-442; Milford, Conn., \$38,982; Annapolis, Md., \$26,110; Beaufort, N. C., \$19,683; and Pensacola, Fla., \$28,083. A total of \$11,130 is allowed for administrative reserves.

Revised regulations for preventing collisions at sea will come into force on January 1, 1954. These International regulations were agreed upon among delegates to International Safety of Life at Sea conference held in

Among more important changes introduced by 1948 regulations are following: 1. The second white masthead light which is allowed by existing regulations becomes compulsory except for vessels less than 150' in length and for vessels engaged in towing; 2, range of visibility of lights on fishing vessels is standardized at two miles. In existing regulations no range is specified; 3. stern light which is allowed by existing regulations becomes compulsory and its range of visibility is increased from one to two miles; 4. range of visibility of anchor lights is increased for all vessels under 150' in length from one to two miles and for vessels over that length from one to three miles; 5. when a power-driven vessel which, under regulations, is to keep course and speed, is in sight of another vessel and is in doubt whether the other vessel is taking sufficient action to avert collision, she may use signal consisting of five short blasts.

New Secretary of State, John Foster Dulles, has received number of resolutions from various organizations interested in fisheries of nation urging him to maintain position of Special Assistant to Under-Secretary of State on Fisheries and Wildlife. Congressman Thor Tollefson of Washington State made some remarks on this subject

in House of Representatives on January 13.

Position originally was created by Secretary of State Cordell Hull when dispute arose between U. S. and Japan on salmon fishing in Bristol Bay, Alaska. Later, when State Department was reorganized, fishery problems were placed in hands of an adviser in Economic Affairs Division. Some of reorganizers got idea that fish should be treated as commodity and completely overlooked fisheries as an international activity. After vigorous protests from fishing industry and members of Congress, State Department re-established post under present title of Special Assistant to Under-Secretary of State on Fisheries and Wildlife.

Congressional committees handling fisheries legislation have now been appointed. In the Senate, members of the Interstate and Foreign Commerce Committee inof the Interstate and Foreign Commerce Committee include: Charles W. Tobey, N. H., chairman; Edwin C. Johnson, Colo.; Homer E. Capehart, Ind.; John W. Bricker, Ohio; Andrew W. Schoeppel, Kans.; John Marshall Butler, Md.; John S. Cooper, Ky.; Dwight Griswold, Neb.; Charles E. Potter, Mich.; Warren G. Magnuson, Wash.; Lyndon B. Johnson, Tex.; Lester C. Hunt, Wyo.; John O. Pastore, R. I.; Mike Monroney, Okla.; and

George A. Smathers, Fla.

Members of the House Committee on Merchant Marine and Fisheries are: Alvin F. Weichel, Ohio, chairman; Thor C. Tollefson, Wash.; John J. Allen, Jr., Calif.; Thor C. Tollefson, Wash.; John J. Allen, Jr., Calif.; Horace Seely-Brown, Jr., Conn.; Timothy P. Sheehan, Ill.; Walter M. Mumma, Penna.; William K. Van Pelt, Wis.; Walter Narblad, Ore.; Frank C. Osmers, Jr., N. J.; Stuyvesant Wainright II, N. Y.; Kit Clardy, Mich.; John H. Ray, N. Y.; William S. Mailliard, Calif.; Francis E. Dorn, N. Y.; Edward J. Hart, N. J.; Herbert C. Bonner, N. C.; Frank W. Boykin, Ala.; Edward A. Garmatz, Md.; John F. Shelley, Calif.; Edward I. Boheson, Jr. Va. Fugene, J. Shelley, Calif.; Edward J. Robeson, Jr., Va.; Eugene J. Keogh, N. Y.; James J. Delaney, N. Y.; Martin Dies, Tex.; Mrs. John B. Sullivan, Mo.; T. A. Thompson, La.; Don Magnuson, Wash.; and Thomas P. O'Neill, Jr., Mass.

Price controls on all edible fish, including Maine sardines, canned salmon, and flat lake salt herring, but excepting processed codfish sold outside the Continental United States, were revoked early in February. Sales of fresh and frozen fish were previously exempted from

National Production Authority has revoked Can Order M-25, as well as M-8, tin; M-24, tinplate and terneplate; M-26, closures; and M-27, collapsible tubes.

Groundfish fillet imports, including cod, haddock, hake, pollock, cusk, and ocean perch (rosefish) during 1952 amounted to 107,802,400 pounds—24 percent more than poundage received during 1951. Canada shipped 51 percent of fillets received during 1952; Iceland 33 percent; and Norway 10 percent.

France has ratified Northwest Atlantic Fisheries Convention. She is tenth and last signatory to Convention to deposit her instrument of ratification and thus become an active participant in work of Commission. Other nine countries are: Canada, Denmark, Norway, Spain, Italy, Portugal, Iceland, United Kingdom, and United States.

Landings of trash fish at principal New England ports during 1952 amounted to 80,021,000 pounds, which was nearly 30 million pounds ahead of 1951. Point Judith, R. I. production, at 34,819,300 pounds, was heaviest. Next was Gloucester, Mass., with 24,205,500 pounds. GM Diesel Case History No. 625-06

BOAT AND OWNER: "Sinbad," 2-year-old, 32-foot trawler built and owned by Mr. L. V. Laurents, Lake Arthur, Louisiana.

INSTALLATION: GM 2-71 turns 28"x22" wheel through 3:1 reduction gear. Boat and owner work for Office of Naval Research through Louisiana State University.

PERFORMANCE: GM Diesel gives "Sinbad" cruising speed of 9 knots, top speed of 11. Fuel consumption when trolling: 1 gallon an hour.



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Capt. Lawrence carefully selects each wire rope that goes on the *Mandalay*, because every Tiger Brand Wire Rope is designed for a particular type of job.

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Some Practical Aspects of Electric Fishing

By Virgil E. Harris*

A GREAT amount of interest has developed among commercial fishermen in recent years concerning the possibilities of using electrical methods of catching fish in the sea. The application of electric fishing methods in the sea involves the establishment of an electric field of the required current density and distribution in a specified volume of sea water at periodic intervals of time.

For satisfactory results the apparatus for electric fishing must be capable of setting up at the boundary of a specified volume of water an electric field of such current density that a condition of electro-taxis is produced in a fish of a given size and species. This is a condition in which the fish orients itself in the electric field with its head pointing toward the anode or positive electrode and involuntarily swims in the direction of that electrode.

As the electric field in a continuous medium such as a large body of water spreads out in all directions from an electrode in an approximately radial manner, the current density in regions outside the boundary in which electrotaxis occurs will be too low for producing this effect. Any fish in these regions will be frightened by the uncomfortable electric field and will try to escape from it. In regions within the boundary for electro-taxis, however, the current density increases rapidly in the direction of the electrode and will everywhere be at least equal to or greater than that necessary for causing a condition of electro-taxis.

Conceivably a fish swimming toward an electrode in a condition of electro-taxis would soon reach a region where the current density would be sufficient for producing a condition of paralysis. Should this happen the fish would become incapable of any further movement and probably would turn belly up and slowly sink toward the bottom. If the electric field were maintained for a long enough period of time while the fish were in this condition, it would die.

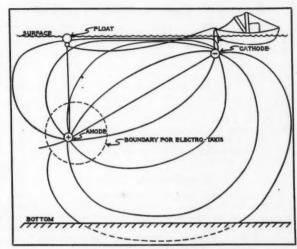
In water of a given resistivity the current density necessary for producing a condition of either electro-taxis or paralysis has to be determined experimentally for each species and size of fish. For a given species of fish, experimenters have found that there is an inverse relationship between the length of the fish and the current density required for paralysis.

It also has been established that water resistivity has a very great effect on the voltage gradient necessary for paralysis. In a series of tests made on salmon fingerlings in water varying in resistivity from that of sea water having a resistivity of 11.6 ohms per inch cube to that of mountain-stream water having a resistivity of about 10,000 ohms per inch cube, it was found that the minimum voltage gradient for paralysis changed from .27 volts to 1.23 volts per inch, or about 4.55 times.

Uniform Current Density Would Be Ideal

The ideal distribution of the current flow for electric fishing would be one in which the current density was uniform throughout the entire volume of the water between the electrodes. While it is possible to obtain a fairly uniform distribution of current flow in a tank or trough of uniform cross-section, it is extremely difficult if not impossible to achieve such a distribution of current flow between electrodes immersed in a large body of water. Jeans (1908) has shown that the lines of current flow between two electrodes in a continuous medium are identical with the electrostatic lines of force which exist when two electrodes are charged to different potentials in air. This means that the lines of current flow from an electrode immersed in a large body of water tend to spread out radially in all directions from the electrode.

When the physical size of the electrodes is small in comparison to the volume of the medium in which they



Spreading of current from electrodes in water.

are immersed, this radial spreading of the current is practically independent of electrode shape. The fact that an electrode is a sphere or a flat plate has little or no effect on the radial spreading of the current. Therefore, it can be said as a rather rough approximation that the current density diminishes inversely as the square of the distance from an electrode.

The rapid spreading of the current from an electrode deeply immersed in a large body of water requires a very large flow of current from the electrode to produce a current density sufficient for paralysis 'at a distance of only a few yards from the electrode. Assuming a uniform radial spreading of current, it can be shown that the total electrode current must approach a value of about 6530 amperes to produce a current density of 4 milliamperes per square inch at a distance of 10 yards from an electrode. The current density used in this example is that necessary for paralyzing a salmon 20 inches in length as computed by McMillan's equation for the paralysis voltage gradient.

To produce this current density, assuming that the resistance between the electrodes and the medium is about .25 ohms, the electrical apparatus must be capable of supplying at the electrodes about 10,700 kilowatts of power at 1630 volts. To extend the same current density out to a distance of 20 yards from the electrode, the total electrode current required is about 26,200 amperes and the apparatus must be capable of developing at the electrodes 171,200 kilowatts of power at 6520 volts.

Periodic Pulses of Current Can Be Used

The power required for electrical fishing can be reduced by using short, periodic pulses of current instead of continuous current. As an example, suppose that square wave pulses of 2 milli-seconds duration are repeated at a rate of 50 per second. Then the current is on for only 100 milli-seconds or for only one-tenth of a second out of each second. This means that electrical apparatus in the examples above would need to provide only one-tenth of the amounts of power indicated there or about 1070 and 17,120 kilowatts respectively.

Experimenters have observed also that some pulse shapes or waveforms and pulsing rates are more effective on fish than others. A recent report from Europe indicates that the German scientists, Kreutzer and Peglow, have determined that a square wave pulse of 2 milli-seconds duration repeated 50 times a second is very effective on cod and herring. At the California Academy of Sciences, Groody, Loukashkin, and Grant (1952) have found that

(Continued on page 34)

^{*}Electronics scientist, U. S. Fish and Wildlife Service, Coral Gables, Fla.

Court Decisions Affecting the Fisheries

By Leo T. Parker, Attorney at Law

DURING the year 1952, the higher courts rendered many unusually important decisions involving the fishing industry. I shall briefly review these legal controversies in this article. Also, a few months ago the writer traveled several States and conversed personally with many officials and employees and persons engaged in taking fish, oysters, shrimp, etc. for the public market. During these conversations I made notes of various legal questions asked by these persons, and in this article I shall answer these queries, as well as questions of law having special interest to all readers. The legal knowledge herein imparted should assist all readers to prepare to win unavoidable law suits.

Seller Breaches Contract

The courts hold that if a purchaser of a fishing boat breaches his purchase contract, the seller may regain possession of the boat and keep all payments made by the purchaser. On the other hand, if the seller breaches the contract the purchaser may recover the payments made on the contract plus all sustained damages.

For example, în Martin v. Terrebonne, 43 So. (2d) 925, the testimony showed facts as follows: One Martin made a verbal agreement whereby one Terrebonne was to purchase from Martin a fishing boat for the agreed price of \$2,600.00, of which \$500.00 was to be paid in cash and the balance to be paid by Terrebonne turning over to Martin a share of the seafood, fish etc. take-off of the boat. After the purchase of this boat, and Terrebonne had started fishing operations, Martin and Terrebonne had an argument and Martin took possession of the boat.

In subsequent litigation the higher court held that Martin must return the \$500.00 down payment to Terrebonne, saying: "It seems that the deal was not called off by the defendant (Terrebonne), but by the plaintiff (Martin) himself; in other words, the plaintiff himself revoked the sale made to the defendant, and under these circumstances, it is equitable to put the parties back in the same position that they were prior to the deal. Defendant is entitled to recover this amount, \$500.00."

With respect to various equipment that Terrebonne claimed he left on the boat, and was on the boat when Martin repossessed it, the higher court refused to hold Martin liable for \$384.00, Terrebonne's estimated value of the equipment. The court said:



The "Admiral Philip", 67' Georgia shrimper which operates in Campeche waters. Built by Leonard Nix Boat Yard, St. Augustine, Fla., the craft is powered with a 275 hp. General Motors Diesel. Her owner is Fred D. Beasley of Crescent, Ga.

"It seems clear that at one time or another, that defendant (Terrebonne) purchased various items, but there is no proof that these goods were left on the boat, and as a matter of fact, many of these goods, such as paint, light bulbs, net dip, steel wool, nails, etc. would appear necessarily to have been used up as purchased and obviously for the benefit of the defendant himself."

Front Page News

Modern higher courts hold that if a fisherman temporarily stores his fish in a warehouse and he knows same are in danger of being lost, destroyed or damaged, it is his duty to exercise due diligence and care to protect his own fish against injury or damage.

A recent higher court decision held that a warehouseman cannot be held liable for damage to stored fish, shrimp, or the like, if the owner had access to "general" information that his merchandise was in danger and failed to protect it. In other words, "general" knowledge of a disaster which endangers stored fish relieves a warehouseman from liability.

For example, in Gulf Seafood Company v. Poillon, 59 So. (2d) 485, the testimony showed the facts as follows: A fisherman named Poillon stored shrimp in a warehouse because he had no immediate profitable sale for them. A hurricane and high water flooded the warehouse and damaged the stored shrimp. Poillon knew that the warehouseman could not be liable for the loss of the shrimp caused by an act of God, but he argued that the warehouseman was liable because he had not given him, Poillon, any notification to enable him to salvage what he could after the hurricane.

It is important to know that the higher court refused to hold the warehouseman liable, and said: "The hurricane and flood was a matter of general knowledge, front page news for many days. Poillon could hardly have avoided knowledge of it. At any rate, Poillon did not show how he could have salvaged the shrimp."

Hence, the court refused to hold the warehouseman liable first, because an act of God caused the damage; second, the hurricane was generally known, and Poillon must have known of it as it was front page news in a local newspaper.

Contributory Negligent

According to a late higher court decision an employee on a fishing boat is not entitled to recover damages or compensation under the Jones Act for an injury caused by his own negligence.

For example, in Esta v. Persohn, 47 So. (2d) 64, an employee named Esta sued a vessel owner named Persohn for personal injuries sustained on board a fishing vessel while the vessel was engaged in shrimping operations in the Gulf of Mexico. The testimony showed these facts: The vessel was what is known as a trawl boat which catches shrimp in a net known as a trawl. This is dropped from the stern and dragged behind the vessel, the front end being held open by two large boards known as doors. These boards are very heavy, weighing about 200 lbs. each. After each haul the vessel is stopped and these boards are lifted to the rear deck and then the trawl itself is pulled in and the catch removed.

Esta sustained serious injuries when Persohn ordered him to help get the twist out of the fishing nets by turning the boards over by hand; one of the boards slipped and crashed down upon him. It is interesting to observe that the higher court refused to hold Persohn liable to Esta for the injury saying:

"The evidence fails to impress us that the operation of turning the board was rendered the more hazardous by not having stopped the vessel completely. The blame should be attributed not to Persohn, but to Esta, who operated the winch and lifted the boards from the water, and who had the opportunity and means of moving them if they were improperly positioned."

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Heavier Landings of Large Haddock Expected

Fish & Wildlife Service Predicts a Smaller Proportion of Scrod in 1953 Catch as Result of Larger Net Mesh*

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CATCH of 78 million pounds of haddock from Georges Bank is predicted by the U.S. Fish and Wildlife Service for 1953, if the amount of fishing is the same as it was in 1952. This represents a slight decline over the quantity landed during 1952. Part of the decline will be due to a decreased abundance of fish on the banks and part to the initial effect of the new mesh regulation which will go into force March 15.

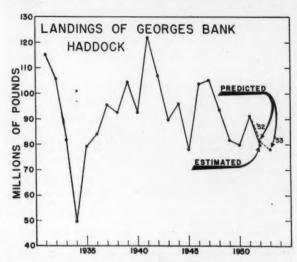
Scrod will continue to be abundant but it is expected that landings of large haddock may exceed scrod for the first year since 1949. Part of this circumstance will be due to natural conditions and part to the effect of the mesh regulation. The strong 1948 year class will contribute good numbers of five-year-old fish which will be landed as large haddock. This age group, together with three-year-olds, will dominate the fishery. The threeyear-olds are just at the size where some will be sold as large haddock while many, especially early in the year, will be marketed as scrod. The net effect is expected to be a greater quantity of large haddock in the catch for the year as a whole.

The 41/2-inch mesh which will be in use after March 15 will have the effect of further decreasing the proportion of scrod, principally through a reduction in the landings of haddock weighing less than 1.5 pounds. These fish are not in demand by the trade but large quantities were landed last year because of the great abundance of the two-year-old fish. The total effect of the mesh regulation during the first year is expected to be a loss of about 10 percent; the loss of fish weighing 1.5 pounds and over is expected to amount to less than 5 percent. An increase

in production is expected, of course, as soon as the population is built up by the saving of large numbers of immature fish now caught and dis-

There is some evidence that the larger mesh will fish more effectively. The magnitude of this increase in efficiency, if it actually exists, cannot be measured at the present time. There is, for this reason, a new element of uncertainty

in the 1953 haddock prediction. The predicted catch of 78 million pounds is not for the calendar year but for the haddock year which begins February 1, 1953 and ends January 31, 1954. The prediction is based on the assumption that the amount of fishing on Georges Bank will be the same in 1953 as it was in 1952. Various factors, including the relative abundance of haddock on the Nova Scotian banks, influence the amount of fishing on Georges. It is possible, however, to predict landings for other levels of fishing effort. If the amount of fishing on Georges Bank declines 10 percent, the predicted catch is 74.4 million pounds; if the decline is 20 percent, the predicted catch is 71.0 million



Graph showing Georges Bank haddock landings for the period 1930-1951, as well as the predicted and estimated 1952 catch and the yield anticipated in 1953.

cent, the predicted catch is about 67.4 million pounds. If, on the other hand, the amount of fishing increases, landings are estimated at 81.5 million pounds for a 10 percent increase, and 85.0 million pounds for a 20 percent increase.

Evaluation of 1952 Prediction

For the year 1952, the Service made predictions of landings for various levels of fishing effort. The actual fishing was about 15 percent under the 1951 level. With

this fishing effort the prediction was 81.2 million pounds. It is too early to make an accurate assessment of this prediction, as all the records are not yet tabulated, but a preliminary estimate of landings from Georges Bank indicates that the catch predicted for the actual amount of fishing may not be in error by more than 1.5 percent.

In the prediction for last year it was stated that the landings of large haddock would exceed the landings of scrod. This part of the prediction has proven to be in error. The proportion of scrod landed in 1952 probably exceeded any year in the history of the fishery. The un-expected preponderance of scrod in the Georges Bank landings was due to two things: the unusual abundance of the incoming group of two-year-old fish and the fact that the fleet found it profitable to fish this age group even though many of the fish were under 1.5 pounds.

It has been difficult to obtain an accurate measure of the abundance of one-year-olds, those that will be two-year-olds the following year, because very few one-year-olds are landed even toward the end of the year. Lacking a research ship (the Albatross III was being used by the (Continued on page 31)

*Prepared by Herbert W. Graham and Clyde C. Taylor, fishery research biologists, Fish & Wildlife Service, Woods Hole, Mass.

pounds; and if the decline is 30 per- Fish & Wildlife Service biologists studying fish discarded by commercial trawlers. Note measuring Navy), it was not possible to apequipment in foreground. Study of these small fish praise the strength of this age group aids in predicting catch the following year.

"Marise" Chartered for Fisheries Investigation

Yale Scientists to Use Dragger In Studies off South America

ALE UNIVERSITY scientists have converted the Marise, 63-foot Stonington, Conn. dragger, into a floating laboratory and have chartered her and her crew to work in a major scientific investigation along a 2,000-mile stretch of the western coast of South America.

Under supervision of Dr. Daniel Merriman, director of Yale's Bingham Oceanographic Laboratory, the expedition will investigate marine life in the Pacific Ocean's well-known Humboldt Current. On March 1, the Marise, two other deep-sea fishing boats and a fourth vessel which will be used for living quarters, will leave Guayaquil, major seaport of Ecuador, to begin the three-month investigation. They will range as far south as Antofagasta, seaport city of Chile.

Aboard the Marise will be Capt. Harold McLaughlin, First Mate Fred "Hap" Hoadley, Zay Panciera, and Gene Brustolon. Hydrographic work will be done on the Marise and fish specimens will be studied and analyzed.

The Yale scientists will measure marlin, swordfish, tuna, skipjack and other fish. Intensive research will be done on the organs of the specimens, both at sea and later at Yale. "We hope to contribute greatly to the knowledge of the so-called big game fish of the ocean," said Dr. Merriman. "We know less than nothing about most of the oceanic game fish, their migrations, growth rates, places and time of spawning, age of maturity, feeding habits and longevity."

The high productivity of the Humboldt waters will be studied to test the theory that there is a local upwelling of deep water to the surface, which stimulates the growth of plants which in turn feed both the teeming fish and bird population. The Humboldt Current is known to contain rare and possibly unknown specimens, and the expedition hopes to bag a few.

Water temperature will be taken frequently to depths of 900 feet. Daily measurements of the nutrient content, as well as the salt and iron content, will be made at different levels to a maximum of 650 feet. Net tows will be made each day for specimens and biological activity will be measured. Chlorophyll content of plants contained in the ocean water at six different depths also will be measured daily.

Hunting for big fish is nothing new for the Marise. For eight years, 1928 to 1936, Capt. McLaughlin and Hoadley hunted swordfish off Newfoundland in the schooner-rigged vessel

Since 1936, the *Marise* has worked out of Stonington for flounder, cod, scup and the other seasonal species. Preparing for the long voyage, she was hauled out at the F. G. Post & Son shipyard at Mystic, Conn. The hull was recaulked and painted, the rudder rebuilt and a chain-controlled steering gear installed to replace a rope gear.

The fish well was rebuilt to house two bunks and laboratory equipment, and a sliding hatch was put on the top deck. The craft also was equipped with new sails and special nets. York Marine Radio in Stonington installed a Bendix DR-9 depth recorder, an RCA direction finder and RCA 25-watt radiotelephone.

Mortality Rate of Oyster Drills High During Wet Seasons

The oyster drill or screwborer is the worst enemy of the oyster in Virginia. These snails attack and kill oysters of all sizes, but especially spat and very small oysters.

During dry years drills move farther upriver than usual. A wet season corrects this situation by killing all the drills on the upriver bars for they cannot stand much fresh water. When rivers contain less than one-third of the salt of sea water, drills soon die.

It is almost safe to say that drills are present throughout the lower Bay wherever oysters are grown. The approximate upper boundaries are Pocomoke Sound, Smiths Island, the lower Potomac River, Towles Point in the Rappahannock, Claybank Wharf in the York, and Brown Shoal in the James River.

Old records suggest that the drill was either absent

Old records suggest that the drill was either absent or much less abundant fifty or one hundred years ago. In 1908 McDonald Lee, Commissioner of Fisheries, wrote that borers were to be found only on the seaside.

One may theorize that in the distant past, occasional extremely rainy seasons prevented drills from living in Chesapeake Bay. Nevertheless, it seems quite certain that drills have been in Chesapeake Bay ever since oystermen first began moving oysters, for that is the drills' most effective method of getting to new areas.

The oyster drill files a round hole through the shell

The oyster drill files a round hole through the shell of the oyster and then feasts on the tasty meat inside. The file of a large oyster drill is a flexible ribbon about two inches long equipped with three rows of teeth, according to Dr. Jay D. Andrews of the Virginia Fisheries Laboratory.



Capt. Harold McLaughlin, right, looks on as First Mate Fred "Hap" Hoadley, left, and Zay Panciera, center, prepare to hoist Gene Brustolon up the aft mast of the 63' Stonington, Conn. dragger "Marise" in a bosun's chair during the vessel's outfitting for an ex-



ploratory cruise off South America. At right is the schooner-rigged "Marise" laying up against the Stonington Boat Works Dock. She is powered with a 5-cylinder, 8 x 10½ Wolverine Diesel, which develops 200 hp.

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Canada Looks to Expansion of Its Fisheries

ITH human populations increasing more rapidly than supplies of animal protein foods, man must learn how to get more and better fish economically, Dr. A. W. H. Needler, director of the Atlantic Biological Station, St. Andrews, N. B., told the recent annual meeting of the Fisheries Research Board of Canada in Ottawa.

Dr. Needler said that the ultimate aim of the fisheries biologist is to discover how to exploit the fisheries resources, in alliance with the economist, the administrator and the industry, to the fullest possible advantage of

Rather than restrict fishing to protect long-term yields, the emphasis should be on development of fish stocks and the improvement of catching methods, Dr. Needler said. He admitted that exploration of Canada's fishery resources is a slow and difficult task.

"In very few instances can we so alter the conditions under which fish grow as to increase their abundance in a manner akin to farming. More often we must learn how to find fish better by exploring for new species or stocks and discovering more about the occurrence and movements of all valuable species. We also must learn how to catch more fish efficiently by studying the operations of kinds of gear, new or familiar, and by learning how successful catching is influenced by the activities of the fish."

An important part of the station's work has been that of testing and demonstrating fishing gear to find out if it would be practicable for use by Canadian fishermen. Introduction of outside fishing methods has met with varied success, which was expected in view of the diversity of conditions for fishing in Canadian waters. The St. Andrews station has played a significant role in the introduction in Nova Scotia of long-lining with powered haulers, and in the extension of this method of fishing to Newfoundland. Widespread flounder dragging by station biologists also stimulated the adoption of this method by fishermen of the Maritime area.

Fishery scientists have been trying to adapt the North Sea deep drift nets to the herring fishery of the Gulf of St. Lawrence. However, the costs appear too high for the present price structure. The St. Andrews station also is cooperating in the testing of some new designs for deep-sea trawls which are in an early stage of development as commercial fishing gear.

Exploratory investigations have shown that fat herring can be caught in good quantities in the Gulf of St. Lawrence over a four-month period. An active search is continuing for herring in the Nova Scotia offshore waters, as well as for groundfish which can be caught by small draggers.

Discover New Long-Lining Grounds

Successful commercial long-lining for cod is believed to be possible in several areas off the east coast of Newfoundland not previously fished, provided that suitable shore plants and landed prices are assured. This was reported by Dr. W. Templeman, director of the Newfoundland Fisheries Research Station at St. John's, who also addressed the annual meeting of the Fisheries Research Board.

The new "deepwater" grounds—100 to 200 fathoms—were discovered by four 55-foot Nova Scotian long-lining boats, known as "Hines Robar" type vessels, operated by the Newfoundland station for the Federal Department of Fisheries. Large experimental catches were made during the 1952 operations of the four-vessel fleet, and it is believed that even greater catches could be made under



Hauling a catch of codfish aboard a dragger operating off the coast of New Brunswick, Canada.

commercial conditions. The waters explored extended from the north side of Bonavista Bay to the Strait of Belle Isle.

The best long-lining deepwater fishing area found was immediately to the east of Funk Island, where the cod taken were large, similar to those of the Bonavista offshore grounds discovered by the Newfoundland station in 1950. The report said it appeared that a very large catch, several hundred thousand quintals a year, could be caught in this area. This catch could be economic if there were shore facilities between Twillingate and Bonavista, to take care of the fish. In the Fogo Island area there are prospects for a supplementary Fall fishery by long-line on the inshore grounds. Good Summer and Autumn fishing grounds for long-liners also were found farther north, off St. Anthony and in the Strait of Belle Isle.

More than 90 per cent of the suitable deepwater long-lining grounds discovered during the 1952 explorations are new and previously unfished, except in some cases possibly in trials by European otter trawlers. A boat as large and seaworthy as the Robar type, which carries a crew of four including the skipper, is recommended for deepwater long-lining in those northern offshore areas where the distance offshore requires the fishermen to spend several days at a time on the grounds in Summer weather. It was found during the experimental fishing that squid was a better bait than frozen herring.

During 1952 a fleet of eight boats started to fish the deepwater grounds about 20 miles off Bonavista. It had been demonstrated in 1951, by the two long-line boats operated by the Research Station, that commercial fishing there could be profitable. A number of fishermen of the new Bonavista fleet met with considerable success. Others, unused to the boats, gear and method, had less luck, but in no case was failure due to lack of fish on the offshore grounds.

Quebec's Fishing Industry Expanding

Quebec's fishing industry will experience considerable expansion with the appearance of larger type fishing vessels in the Gaspe region, Dr. H. Fougere, acting director of the Gaspe Fisheries Experimental Station, told the Fisheries Research Board.

Diesel draggers and long-liners with modern equipment for bigger catches and larger profits, are gradually replacing the small motor-driven type boat. It is a condition evident also in the Maritime Provinces, where deep-sea trawling is gradually replacing the traditional dory fishing.

The heavier landings of fish on the Gaspe peninsula have resulted in new and larger shore facilities to handle the catches. The Gaspe Station aids the industry with technical assistance in the solution of various problems,

(Continued on next page)



Henry Brey, commercial fisherman of Munising, Mich., with a catch of 19 lake trout totalling about 60 lbs. The fish were taken in two hours of bobbing fishing through ice on the East Channel between Grand Island and the U. S. Coast Guard Station, near Munising. The largest trout weighed 6 lbs.

including the enlarging of existing fish processing facilities as well as new construction.

Definite knowledge of the correct conditions and methods for obtaining high quality, light-salted codfish by artificial drying has been obtained by the federal fishery research workers of the Gaspe Station. Steps are now being taken to pass this knowledge along to the industry. A new artificial dryer has been designed expressly for light-salted codfish. It is easy to operate and has a total capacity of 16,000 pounds of fish. Compared with other models it has a very low operating cost, and has the advantage of being able to give equally good results with heavily-salted codfish.

A new commercial fishery for rosefish is also a possibility in the Gaspe region, Dr. Fougere told the meeting. An abundance of this species has been found in the Gulf of St. Lawrence, a few miles off Fox River and Cap-des-Rosiers. Although the grounds have been exploited for the past two years by U. S. draggers, it was only in 1952, with the introduction of small Canadian draggers in the area, that the fishing of rosefish on a commercial basis was initiated by Quebec fishermen.

Jacketed-Compartment Refrigerated Fish Scow

A further extension of the jacketed system of refrigeration, already applied to cold storage plants, railway cars, fishing trawlers and display cabinets, has been developed by the Pacific Fisheries Experimental Station at Vancouver. Dr. Neal M. Carter, director of the station, reported to the annual meeting of the Fisheries Research Board of Canada that his staff had designed a jacketed-compartment refrigerated fish scow.

The scow, with two compartments, can be used for a combination of purposes. It can supply boats at remote fish camps with crushed ice processed from block ice stored aboard; it can transport frozen fish and fishery products; it can carry fresh fish from the grounds to processing units, and it can take mild cured and smoked, frozen or fresh fish to market outlets.

Each jacketed compartment is equipped with a unit blower located on the roof of the refrigerated barge for convenience of operation, ease of inspection and efficiency. The refrigeration equipment may use either Freon or ammonia and be semi-automatically or automatically controlled. Temperatures in the compartments may be varied to suit the products inside.

Commercial Ice Bobbing Is Profitable on Great Lakes

During ice season on the Great Lakes there are several methods used to catch fish in commercial quantities. Whether a fisherman is a large or small operator is merely a matter of how much equipment he uses and how many fishermen he employs.

Winter in this region finds ice fishermen using trap, fyke, gill, or seine nets, set-hook lines, bobbing lines, not to forget the medieval method of utilizing a trident spear, and dip nets to make their hauls. Fish taken include trout, whitefish, pike, chub, suckers, smelt, herring, burbot, perch, and many other species.

But for the investment involved, Henry Ley, Munising, Mich. taxi cab operator and commercial deep-sea troller on Lake Superior, takes the prize. He says bobbing for lake trout is, during the ice season, most enjoyable commercial fishing. Brey has taken as many as 129 lake trout and 10 burbot, which isn't bad at all, particularly when lake trout bring about 50ϕ a pound. The trout average 5 to 9 lbs., while the burbot usually range over 10 lbs. Brey uses his dog, a Husky, to pull his sleigh and equipment. This includes a spud—made of iron or steel—to chop a hole 6" to 10" in diameter through the ice.

The only actual fishing equipment the bobber requires, outside of a herring net—although herring may be obtained from other commercial fishermen—is a hand line, sinker and a large hook. However, a sleigh and a windbreak or shanty make fishing more comfortable. The bobbing line may be cuttyhunk of 35 to 50-pound test or nylon of the same strength, and is usually tarred for Winter use to prevent it from stretching.

Lake trout seem to suck in the bait during early Winter rather than nab it as if it were the last choice morsel on earth. If bobbing is to be performed in deep water or where there is an undercurrent, the fisherman may not feel the strike if he uses a line that will stretch.

Most popular hooks among Great Lakes bobbers are the salmon hook, or the "Mackinaw" hook, in sizes 6/0, 7/0 or 8/0. These hooks have a larger base than standard, and there is less chance for the fish to get away. The lead sinker keeps the bait near the bottom.

Herring Used for Bait

A herring "flipper" is generally used for bait. This is a triangular piece of flesh, preferably from the side of the herring's tail. The hook is threaded through the bait in such a way that the base of the flipper is at the bottom of the hook, with the upper end hanging loose so that it will move as the fisherman works the bait up and down to attract lake trout. In bobbing the line doesn't have to be held all the time. The bobbing idea is to give the bait an action, but little waves under the surface of the ice aid considerably.

After the strike, the fisherman may take in the line with a hand over hand action, or if he has a partner, he may run with the line, having his partner guide it away from the edge of the hole in the ice and lift the fish from the water as it approaches the surface. Brey sometimes lets his dog run with the line by snapping it onto the dog's collar.

A good bobber must be able to locate his fishing grounds, which are usually along a bank or over a reef where fish are feeding. Depth of fishing waters ranges from 6 to 30 fathoms. A suitable bank or reef may be found by taking soundings, a process which can be a big task if one has to cut many holes in the ice to locate a productive spot. A better way is to obtain a survey map, which will indicate the reef and bank areas.

Brey does a major part of his Winter ice fishing from a shanty on the East Channel between Grand Island and the U. S. Coast Guard station near Munising. At times, however, he will fish 8 or 9 miles out, depending on where the fish are concentrated. On distant fishing trips, he uses a canvas windbreak rather than attempting to haul his shanty that far over ice.

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ar fis w ch Capt. Julian Willis of Atlantic, N. C., left, owner of the 38' shrimper "Three Sisters", which is shown trawling in Core Sound. The vessel's power plant is a 43 hp., D4400 Caterpillar Diesel with Hyde propeller. She also is equipped with Ederer nets, Danforth anchor, Hudson American Corsair radiotelephone, and uses Esso lubricating oil. The shrimper was built at Morehead City in 1946.

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Cape Cod Firing Range Opened To Fishing on Saturdays

Capt. Manuel P. Dutra, president of the Provincetown Seafood Producers Association, recently announced that he had been informed there would be no firing at the South Wellfleet firing range on Saturdays until at least June 1, when the matter will come up for discussion again.

Capt. Dutra requested that the Army units refrain from firing at Camp Wellfleet on Saturdays so Provincetown boats could have an opportunity to use the area two days, rather than be limited to a single day, Sunday. He said that during the Christmas holidays, when boats were able to use the area, considerable amounts of fish were found.

Army officials told Capt. Dutra that in the future they would contact him the day before firing was to be canceled so boats could use the area.

Value of Orleans Scallop Yield Highest Ever

"Bay scallops are the big news from the shellfish department during the year 1952," Elmer R. Darling, Orleans shellfish constable, said in his annual report. "It seems that a fair and conservative estimate of the value of these shellfish to the fishermen, based on buyers' figures and other factors, is, up to Jan. 1, 1953 about \$35,000. This we believe to be the highest amount ever realized from bay scallops in our Pleasant Bay areas. Prices for the shucked product were very high all the year, because of the fact that scallops were, on the whole, in small supply in most Cape waters.

"Although the beds in Pleasant Bay, which showed signs of a fair crop by surveys conducted during the Summer of 1952, were most disappointing at opening time in October, the Little Pleasant Bay area far exceeded all expectations as to both quantity and quality.

expectations as to both quantity and quality.

"An abundant supply of seed for another year is noted in both bays. Some transplanting is needed when conditions are right, to move some of these shellfish from overpopulated areas to scarcely populated and better growing grounds.

"A heavy set of scallop seed also is noted in the lower Town Cove areas. Some of this, too, will be moved to deep water for protection from preying birds and Winter conditions."

Chatham Has Record Amount of Scallop Seed

The largest amount of scallop seed on record has appeared in Pleasant Bay following replanting of shell-fish last Spring, the Chatham Fisherman's Association was told at a meeting held January 2. Harold E. Claffin, chairman of the shellfish committee, reported that 850 bushels of scallops were moved last Spring after the first experimental scallop-moving for propagation was under-

taken in the Spring of 1951 from Pleasant Bay to the Oyster Pond.

Not only has Pleasant Bay shown the largest amount of seed on record, but an excellent amount of seed has appeared in South Bay, Mr. Claffin declared. South Bay is an area that originally provided good scalloping, but has not produced scallops for a great many years. Scallops that were moved increased to such a size that an additional \$12 a day was received for a 5-bushel limit.

Mr. Claffin said about 2,000 bushels of scallops were moved last Fall to protect them from being washed ashore. It was agreed after discussion between Edwin F. Eldredge, chairman of Selectmen, and Association members, that a \$3,000 appropriation could be used profitably to carry on shellfish work.

The Association re-elected its officer staff, headed by George W. Bloomer. Other officers are James Crosby, secretary, and Albert Long, treasurer.

North Carolina Shrimper Sinks off Cape Hatteras

Four Atlantic men were rescued January 14 when the shrimp boat *Drewer* sank off Cape Hatteras. The men were picked up by another boat, the *Verna R.*, and brought to Atlantic.

The 65' Drewer, owned by Harry Fulcher of Atlantic and Percy Davis of Marshallberg, sank shortly after midnight in 90' of water 12 miles east of Hatteras Light. Capt. Henry Fulcher said that bad weather and rough seas were responsible for the sinking. The other members of the crew of the Drewer are Shelby Fulcher, Wendell Nelson and Ray Fulcher.

As the *Drewer* began to go down, the four crewmen jumped into the sea. Men on the *Verna R*. threw lines to them and pulled them from the water. The *Verna R*., owned by the Clayton Fulcher Seafood Co., is commanded by Harry Brickhouse of Atlantic.

Shad Fishing Has Good Start

Catches of shad the latter part of January in the Manns Harbor area were encouraging. Ronald Craddock is reported to have taken more than 300 on the 27th, and William Crain 150, with other catches running from 50 to 70. The fish were mostly roes. Fishermen have been late getting their nets set, waiting for the bad weather to be over.

Nunnemakers Lease Cold Storage Plant

The H. B. Culpepper cold storage business, recently sold to Russell Box of Elizabeth City, has been leased by Carl, Sr., Charles and Carl Nunnemaker, Jr., who have operated the Nags Head ice and fish business for two seasons. The new management will open the plant as soon as the drum start running.

Scallopers "Lauren Fay" And "Ruth-Moses" Added To New Bedford Fleet

TEN days after launching at Bristol Yacht Building Co., South Bristol, Maine on January 26, the new 78-foot scalloper Lauren Fay sailed on her maiden voyage from her home port of New Bedford, Mass. Owned by Israel Kestenbaum of New York City, the vessel is a duplicate of the Ruth-Moses, which the yard launched in November for Moses Schonfeld of New York.

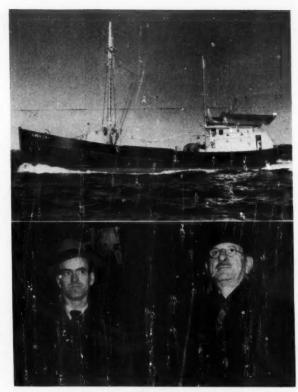
The Lauren Fay was christened by Mrs. Harvey Gamage, wife of the builder, and is skippered by Capt. Theodore Pedersen, with Fred Walega as engineer. Fully equipped when she slid down the ways, the dragger went on her trial run three days later. The trip from South Bristol to New Bedford was made in approximately 18 hours running time, showing a speed of 9 knots. The Captain reported good performance from his machinery and equipment and said that his new command showed every indication of being a very seaworthy boat.

Both the Lauren Fay and Ruth-Moses are powered with a 6-cylinder, 9½ x 14, 240 hp., 400 rpm., direct reversing Wolverine Diesel. The engine swings a 56 x 34 Columbian propeller on 4" Tobin Bronze shaft, fitted with Hathaway flax-packed stern bearing and stuffing box. The engine has a No. 86 Newton Clutch power take-off for the winch, and operates belt-connected Marine Products wash down and bilge pump and 3 kw. generator. Three Fram lube oil filters and Maxim silencer are used.

Built from designs of Albert E. Condon of Thomaston, Me., the new vessels are similar to the Vivian Fay, but have been lengthened two feet at the stern and have less flare on the bow. This latter vessel was built by Bristol Yacht Building two years ago for Kestenbaum and Schonfeld. She is skippered by Capt. Haakon Eilertsen and is powered by a 6 cylinder, 8½ x 10½, 240 hp., 650 rpm. Wolverine Diesel with Snow-Nabstedt 2:1 reduction gear.

Another scallop dragger for Schonfeld, to be named Debbie and Jo-ann for his two daughters, is scheduled for construction at South Bristol. She will be powered with a Model WM1905 turbo-charged, 7 x 8¼, 350 hp., 1100 rpm., Wolverine Diesel with Snow-Nabstedt 3:1 reduction gear.

The Ruth-Moses, which is named for her owner and his wife, already is one of the high-liners in the New Bedford scallop fleet. On her first trip brought in the middle of December, she hailed for over 1,000 gallons, and on her



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The new 78' scallop dragger "Lauren Fay" of New Bedford, Mass., and her skipper, Capt. Theodore Pedersen, left; and owner, Israel Kestenbaum. She was built by Bristo Yacht Building Co. and is powered by a 240 hp. Wolverine Diesel.

fourth trip in the latter part of January she landed 1,250 gallons of scallops. Her skipper is Capt. Martin Andersen.

The Lauren Fay, whose equipment is identical to that of the Ruth-Moses, has registered dimensions of 72.2' x 17.8' x 9.4'. She has 2" oak planking, 2½" white pine decking and double 3" sawn oak frames on 16" centers. The keel is sided 9", the pilothouse is sheathed inside and out with plywood, and fastenings are galvanized. Pettit paints and seam compound were used.

There are sleeping accommodations for 8 in the fo'c's'le and 2 in the after cabin, while the Captain has a commo-



Left, Capt. Martin Andersen of New Bedford, Mass. scalloper the "Ruth-Moses", shown underway; right, Moses Schonfeld, owner, looking at the vessel's Columbian propeller.

ATLANTIC FISHERMAN - FEBRUARY, 1953

dious stateroom in the deckhouse, which has access to the cabin companionway. The after quarters are heated with hot water radiators supplied by a #30 Shipmate marine hot water boiler located in the engine room. The vessel carries 3,000 gals. of fuel oil and 450 gals. of fresh water in welded steel tanks.

The fo'c's'le is exceptionally roomy, and is fitted with No. 450 Shipmate oil-burning range, stainless steel sink with water pump, built-in refrigerator and hardwood mess table.

The auxiliary set is a "Deseco" unit comprising an 8 hp. Lister-Blackstone Diesel with direct connected 3 kw. Imperial generator, and Quincy air compressor and Marine Products pump operated through individual Newton dryplate clutches. Batteries are Type HHG-21, 32-volt Surrette, and there is a Safety Car voltage regulator.

Navigating equipment includes Kaar direction finder, Raytheon Submarine Signal Fathometer, Loran, White Constellation compass and 50-watt Apelco radiotelephone. The pilothouse is equipped with Carlisle & Finch spotlight, Clark Cooper air whistle, Crouse-Hinds floodlights and Hathaway reduction gear steerer.

Lifesaving equipment consists of two 14' dories,' life jackets and two ten-person life floats. The toilet is located in the after deckhouse, which also has space for gear stowage. A 200-lb. Danforth anchor is carried, and there are two Edson 2½" hand deck pumps.

Deck gear consists of a Model 1353 Hathaway winch,

Deck gear consists of a Model 1353 Hathaway winch, having a capacity of 300 fathoms of ¾" wire on each of its 20" wide drums. The 11' scallop drags, deck blocks and 5" galvanized steel welded gallows frames also are of Hathaway manufacture. The winch is operated through a sprocket and chain drive from the main engine, and has 11.25:1 reduction, which is greater than that used in the older winches and is designed to provide proper winch speed with higher speed engines.

The main engine on the new vessel is equipped with an 8" Aqua-Clear Feeder which makes possible the use of raw sea water for cooling the engine with complete protection against rust and corrosion and without "salting down" the engine. It also helps control destruction by electrolysis. The Feeder is a simple device which is connected between the seacock and pump. Water flowing through the Feeder takes up a small amount of Aqua-Clear crystals contained in the Feeder and deposits a microscopically thin glass-like film on the inside surface of water jackets, manifolds, etc. This film is air and water tight and prevents the water from touching the metal, thereby eliminating possibility of rust or corrosion. Since Aqua-Clear will not build up upon itself, the film remains tissue-thin and will not interfere with the flow of water or of transfer of heat.

While Kestenbaum and Schonfeld are relatively new to the fishing industry, with the ownership of their new vessels, they are becoming an important factor in the New Bedford industry.

As a result of their travels in New England they became fascinated by the fishing industry, and felt that because of growing popularity of frozen food, the scallop business has a good future. They decided to start their fishing operations with new vessels instead of acquiring old ones, and have established a reputation for building well-equipped vessels and maintaining them in topnotch condition.

Kestenbaum is president of Cape Shore Fish Co. of New Bedford, and in New York City is one of the largest raw fur dealers in the world. Schonfeld heads the Sun-Fast Textiles, Inc. and Schonfeld Trading Co. of New York City.

Born in London, England, Schonfeld attended the University of London. He came to this country in 1938 as an aide to the late Lord Josiah Wedgewood, a member of Parliament, in the interest of the movement of the Dominion League for Palestine. He is the author of "The Mark of The Swastika" and a manual for relief workers called "Nutrition Problems in Relief and Rehabilitation," which was sponsored by Columbia University. He has traveled extensively in the Middle and Near East and is a reviewer for the magazine "Light".



William H. White, right, sales manager of Walverine Motor Works, briefs Mate Arne Farg on the 240 hp. Wolverine Diesel in the new scalloper "Ruth-Moses" of New Bedford, Mass.

Gloucester Trash Fish Catch Sets New Record in 1952

Although no food fish records were broken at Gloucester in 1952, the port had its biggest year in trash fish receipts, mostly pogies from along the shore caught by a small fleet of seiners. The trash fish total amounted to 27,047,000 lbs., which was twice as much as the next best year.

The year 1952 was the fourth biggest in Gloucester's fishing history. Statistics show that the port had 5,329 trips with 182,053,700 lbs. food fish, of which 1,117 were ocean perch trips, yielding 118,491,000 lbs.; there were 892 whiting trips, with 13,779,000 lbs.; and 138 mackerel trips, with 1,367,000 lbs. The fishing industry in Gloucester in 1952 meant some \$14,000,000 to fishing boat owners, fishermen, and shore workers.

The over-all total of fish receipts in Gloucester, food fish and trash fish together, brought the 1952 landings up to 209,100,700 lbs., compared to 255,267,400 lbs. in 1951.

Dragger "Viola D." Sinks

The 60' fishing dragger Viola D. of Gloucester sprung a leak and sank 17 miles east by south of Eastern Point on January 21. Capt. Gene Biondo and his crew of three men, all of Gloucester, were forced to take to a dory and were rescued after a half hour by Capt. Anthony Bertolino and crew of the local dragger Sant. Jucia.

"Little Joe" Repowered

Capt. Jerome Pallazola's dragger Little Joe has been repowered with a Model WM-1197, turbo-charged Wolverine Diesel rated 225 hp. at 1400 rpm., swinging a new 48 x 32 Columbian propeller through Snow-Nabstedt 3:1 reduction gear.

Seek Federal Aid for Clam Industry

Federal and State biologists and local clam commissioners gathered at a meeting sponsored by the Essex County Board of Trade at the Essex Town Hall January 12. Methods for controlling the major predators which are destroying the soft-shell clam along the coast were discussed.

A brief to be drawn up by Lawrence J. Hart of Gloucester and presented by Cong. William H. Bates, will ask that an additional \$50,000 be appropriated this year for an experimental green crab control program to be conducted on a small scale.

Rhode Island Fishermen Want **Bay Waters Resurveyed**

Agriculture Director John L. Rego and Fish and Game Administrator Edward C. Hayes assured a group of Riverside shellfishermen on January 19 that they will ask the State Health Department to resurvey an area of public waters between Bullocks Point and Conimicut Light to determine if it would be safe to take shellfish there. The delegation of fishermen, which claimed to represent some 40 members of the industry from East Providence and northern Bristol County, was headed by Gordon Thompson of West Barrington.

The area in question is bounded by a line running from Bullocks Point across the river to Gaspee Point and the present limit to shellfishermen from Conimicut Light to Nayatt Point. The shellfishermen said they would favor a State closing of areas in Buttonwoods on East Greenwich Bay which are now open to shellfishing but which contain a large number of quahaugs or clams currently

under legal size.

Pledges Full Use of Fisheries Resources

An attempt to utilize the full natural resources of Narragansett Bay was promised recently by John L. Rego, Director of Agriculture, who spoke at the third annual dinner of the Swanee River Fishing Club in Bristol. He described the Bay as probably "the greatest area in the

nation for raising shellfish."

Rego said his department hoped eventually to engage a marine biologist to study ways of gaining most advantage from Rhode Island quahaug colonies, which he said were reported to be unmatched in size and number of their products. Reasons for these unique qualities are unknown, Rego said, but expert research may find the answer and show methods of tapping the full resources of the Bay to a greater extent.

However, Rego counseled that the problem of pollution must be solved first. Meanwhile, he urged, State laws against taking of quahaugs from polluted waters should

be rigidly observed.

Urges "Encouragement" of Fisheries

In his inaugural address to the Rhode Island Legislature Jan. 6, Governor Roberts urged "encouragement and support" for the State's \$5,000,000 commercial fishing industry. The Governor recommended consideration of legislation "which would restore commercial trawling in Narragansett Bay to an extent consistent with sound principles of conservation."

Long Island Assoc. Discusses **Fisheries Legislation**

The annual meeting of the Long Island Fishermen's Association was held January 9, with some 60 members from practically every section present. The legislative program was discussed, and it was agreed that the striped bass hook-and-line bill should be strongly opposed. possible bill which would lower the size limit on fluke from 15" to 14" was brought up, but no action was taken.

The matter of small fish being caught and marketed also was discussed. Some present expressed the opinion that the influx of such fish seriously affects the price of

fish shipped by Long Island fishermen.

A suggestion was adopted that the Association sound out sentiment among its dragger members regarding an in rease in mesh size of flat nets. It earlier was suggested that the mesh size limit be increased to 4½", including the cod end.

At the directors' meeting following the annual meeting of the Association, Ed Winters of Westhampton Beach was

chosen to serve as president for the coming year, succeeding Rod Pell of Greenport. Mr. Winters has been in the fishing business for many years, and owns and operates the dragger Wm. H. Winters out of Shinnecock Inlet. Frank Collins of Sayville was named vice-president; Nelson Van Wyen of West Sayville will serve as secretary, and Nicholas Griek was appointed to continue as secretarv-treasurer.

Waters off Rockaways Tested

At the request of the Long Island Fishermen's Association, the waters in the Atlantic Ocean off the Rockaways are being tested to determine whether there has been a sufficient decrease in pollution to warrant the lifting of the ban on the taking of skimmer clams. The Sanitation Unit of the Conservation Department has gathered water samples from some 20 or more stations, and clam samples from 4 to 5 widely separated areas from East Rockaway Inlet to the Rockaway Jetty.

The offer of the fishing industry to furnish a vessel and personnel in making the survey was accepted by the Conservation Department. Samples were taken on two occasions so that the area could be tested under different tidal conditions. The first samples were gathered on January 14 aboard the skimmer vessel Tora, owned by Jibber Miller of Baldwin. Six days later the same stations were visited by Lek Whealey's Happy Days, and samples of clams and water taken.

It is believed by many that an improvement exists in the area. Sanitary engineers have installed sewage disposal plants in the metropolitan district, and other seashore communities have repaired and increased the ca-

pacity of existing plants.

The surf clam industry has developed into one of the major shellfish operations on Long Island, yet little is known about the skimmer. Its spawning and feeding habits, its growth rate, and its natural enemies all need extensive study. Methods of locating additional beds, and ways of harvesting and handling could be improved.

"Muskegon" Gets New Engine

A new WM-1905 Wolverine Diesel, rated 250 hp. at 1100 rpm. and equipped with Snow-Nabsted 3:1 reduction gear, was installed recently in the Greenport dragger Muskegon, operated by Capt. Magnus Davidsen.

Named Marine Agent for Safety Car

Smith-Meeker Engineering Co. of New York City recently was appointed marine agent for Safety Car Heating & Lighting Co., New Haven, Conn., in the States of New York and New Jersey and part of Connecticut.



A flying bridge with dual controls is a feature of the 30' \times 9 $\frac{1}{2}$ ' \times 3' lobster boat "Aquarius", which was launched in August, 1951 by Lash Bros. Boatyard, Friendship, Me., for Capt. F. H. Tillotson of Saga-ponack, Long Island, N. Y. She has pine planking and decking, oak keel and steam bent oak timbers. Cuprinol was used in all bilges, and the vessel has a Chrysler Crown engine with 20 x 16 Michigan wheel which turns through 2:1 reduction gear, giving the boat a speed of 15 knots. She uses New Bedford rope, Ederer nets, and is painted with International paint.

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Maine Bill Proposes Fisheries School

Rep. Leroy McCluskey, Warren, is the author of a bill providing for a Maine Fisheries School. This proposed act would authorize the establishment of a two-year fisheries course at the Maine Vocational Technical Institute.

Suggested subjects for such a course include fish marketing, finance and credit needs, cooperatives, fish products accounting, methods of fishing and fish handling, marine biology and pathology, marine farming, study of Maine marine fishery resources, marine engines, radio, safety rules, fishing laws, seamanship and navigation.

At the present site of the Maine Vocational Technical Institute at Fort Preble, Portland, there is ample room for such a school. There are wharves where boats could be kept for practical work. The school would be similar in nature to the two-year course in agriculture at the University of Maine

There already is an elective marine course at the High School in Portland which is known as "Ocean, Harbor and Waterfront." Instructor James E. Flanagan begins with salt and rope and goes on into a wide range of subjects. The course is open to junior and senior boys.

To Study Effect of Petroleum Seepage

The Department of Sea and Shore Fisheries was to start extensive tests in eastern Casco Bay during January to determine whether or not possible petroleum seepage from existing and proposed Naval fuel depots will have a destructive effect on Maine's \$200,000 quahog industry. Commissioner Robert L. Dow said the investigation was prompted by the fact that the Navy is constructing a large fuel depot on Harpswell Neck, and that Casco Bay fishermen and clam diggers were concerned over possible damage to fish and shellfish in the Bay area from any escaping oils that might cover flats or fishing area surfaces.

Tests will be conducted to determine the extent of petroleum pollution, if any, and what effect it has on the taste, odor and appearance of quahogs, clams, lobsters and other seafoods in the area, Dow said. The Navy already operates a fuel station at Long Island in Casco Bay, and there is some question among local fishermen as to whether oil from there is detrimental to the fisheries. The new Naval depot is situated in the heart of the valuable quahog producing area of Maquoit and Middle Bays.

The Sea and Shore Fisheries Department tests will be carried out by biologists in the laboratories at Boothbay Harbor, and the findings will serve as a yardstick for other oil pollution problems now existing in Maine waters, such as the Penobscot River, where fishermen believe dumping by oil tankers has seriously undermined the salmon and smelt fisheries. The Department biologists also will conduct experiments as to damage done by oil residue to fish and shellfish larvae, which at certain stages of development float on the surface where the oil is most likely to prevail.

In the Harpswell area alone there are more than 500 fishermen and quahog diggers who make their livelihood from the flats and fishing waters of Casco Bay.

"Flow" is Rockland Highliner

The Birdseye Division of General Foods reports total landings of 1,541,600 lbs. of fish at the Rockland plant during December. There were 1,471,300 lbs. of redfish and 70,300 lbs. of groundfish landed. Highliner was the dragger Flow, of which Capt. Douglas Schwartz is skipper. His fares totaled 381,700 lbs. Next was the Breeze, 370,300 lbs.; while the Billow, with 282,500 lbs., was third.

Fishing Vessel "Greyhound" Sold to Hatch

The 38' fishing vessel *Greyhound*, which was recently torn apart by an explosion at its float alongside Fisherman's Wharf, Inc., Boothbay Harbor, has been sold to Frederick J. Hatch of Nobleboro. The boat has been



The 78' x 17' 6" x 8' sardine carrier "Lou Ann" on her way up the Kennebec River in Maine. Owned by Bath Canning Co., Bath, Me., the vessel is powered with General Motors Twin-six Diesels driving a single 52" x 40" screw through 4:1 reduction. She has a pay-load capacity equal to 1800 bushels, and a cruising speed of 11 knots at 1600 rpm.

towed to Shipwreck Cove, in the vicinity of Spruce Point. From there she was to be transported overland to Nobleboro, where Mr. Hatch will work on her. The craft formerly was owned by Fisherman's Wharf, Inc., a firm headed by Robert Royall.

Traveling Exhibits on Lobster Industry

More than a half million metropolitan New York school children will see how the lobster fishery operates in Maine through traveling exhibits sponsored by the American Museum of Natural History. In its Department of Public Instruction, the Museum is setting up twelve duplicate exhibits on the Maine industry which will go out to the public schools of New York City as one of the aids to teaching provided by the Museum.

The exhibits are being made up with the assistance of the Department of Sea and Shore Fisheries and the Maine Development Commission. Photographs showing all phases of the lobster industry and the booklets "The Story of the Maine Lobster" and "How to Eat a Maine Lobster" are being supplied by these Departments for the displays. The exhibits also will have miniature lobster traps and fishing craft which will give the school children a visual story of how the lobsters are caught.

Sardine Has TV Debut

Maine sardines made their television debut January 15 with an industry-sponsored 15-minute noonday Fashion and Food Show over WPIX, one of New York's leading stations. Negotiations have been completed to star Blanche Ravisse, well-known fashion and food expert on a three times a week quarter-hour show for thirteen weeks. In her first show, Miss Ravisse featured several sardine main dishes, as well as the industry's popular 32-page full-color recipe book.

Boothbay Region Has Vast Lobster Business

According to estimates by D. Arthur McKown, Federal statistician, and Donald Harriman of the Maine Sea & Shore Fisheries Dept., better than 2,000,000 lbs, of lobsters are shipped from the Boothbay Region in a year. All of these lobsters are not caught in local waters, however. Canadian lobsters are received and stored in pounds, as are lobsters caught in other areas.

"Rhode Island" Gets Automatic Steerer

A Bendix Photo-Electric Pilot, Model 52 automatic steerer, sold by The Harris Co., has been installed in the dragger *Rhode Island*. The vessel is owned by Capt. William Howell of Southwest Harbor and fishes from Rockland.

Louisiana to Enforce Inland **Water Trawling Regulations**

The Wildlife and Fisheries Commission recently called for renewed enforcement of regulations regarding trawling in inland coastal waters of Louisiana. Trawling is permitted during daylight hours only, and violators will

be prosecuted when apprehended.

Inside coastal waters are listed as Chandeleur Sound, Breton Sound, Bastien Bay, Blind Bay, Garden Island Bay, East Bay, West Bay, Barataria Bay, Timbalier Bay, Terrebonne Bay, Caillou Bay, Atchafalaya Bay, East Cote Blanche Bay, West Cote Blanche Bay, Vermilion Bay and all other bays and sounds along the Louisiana coast; and waters of the Gulf of Mexico east of the Mississippi River to the southwest pass and between the "cutoff" at Rabbit Island or the boundary between the St. Mary and Iberia Parishes to Sabine River west of the Mississippi River, of which the water is less than three fathoms deep.

Vermilion fishermen were told that the three fathoms in depth takes in waters from Shell Keys reservation to the Freshwater Bayou in the parish area. Emphasized was the point that a body of small shrimp making 77 count (77 tails to the pound) off the Vermilion, Iberia and St. Mary coasts is inside the three-fathom mark.

Inland waters in Louisiana are closed to commercial shrimp trawling February 15 to April 15, and June 21 to the 2nd Monday in August.

Agree on Higher Prices for Raw Shrimp

The regular quarterly meeting of the Gulf Coast Shrimp Producers Association, Inc. resulted in raising prices to be paid for shrimp at the dock to the following scale: 15-20 count shrimp, \$67.50 per barrel; 21-25 count, \$62.50; 26-30 count, \$54.50; 31-35 count, \$45.00; 36-42 count, \$40.00; 43 and over count, \$12.50.

Brown or pink shrimp now bring the same price as white shrimp or grooved shrimp. Fishermen receive 2¢ a pound more for shrimp delivered at the dock with

heads off.

The increase in price asked by the shrimp producers and agreed to by the dealers amounts to \$5.00 per barrel in the 15-20 count, 21-25 count and 26-30 count, and \$7.50 per barrel for shrimp in the 31 to 35 class.

Pitre Gets New Trawler

Francis Pitre of Cut Off took possession January 27 of his new 60' shrimper Captain Frank, which was built by Conrad Industries, Morgan City, La. The trawler is powered by a 6-71 General Motors Diesel, has a Stroudsburg hoist and Bendix DR-10 depth recorder.

Conrad expected to launch a 67' standard trawler for A. F. "Buster" Sauls of Morgan City the middle of Febru-



The "Ramona", 371/2' fishing boat owned by W. T. Landers of Berwick, La. She has a 6-cylinder, 115 hp. Chrysler engine, and makes 12 mph.

ary. She will be powered with a 6-71 General Motors Diesel.

Also under construction is a deluxe trawler, which will be 70' in length, and will have Monel shaft, DR-7A Bendix depth recorder and other special features. The vessel has been ordered by Captains M. A. Yonge and Joe Webster of the Twin City Fishermen's Co-operative Ass'n, Inc. of Morgan City and Port Isabel, Texas.

Seek Reopening of Lake Verret to Fishing

Fishermen and seafood dealers in the area plan to ask the recently created Louisiana Wildlife and Fisheries Commission to reopen Lake Verret to commercial fishermen. The lake was closed some two years ago, and many fishermen were forced to seek other employment. Lake Verret is a prolific producer of buffalo and gaspergou.

New Oysters and Water Bottoms Division Head

Lester L. Walters, biologist in the Louisiana Oysters and Water Bottoms Division since 1948, has been named head of the Division by the recently created Wildlife and Fisheries Commission. He succeeds James N. McConnell, who has served in the post for 27 years and has been largely responsible for the maintenance and development of the oyster resources of the State.

Shrimp Pack Down

The shrimp pack as of the middle of January was about 464,000 cases, compared with 500,000 to the same time last year. Demand has been heavy.

Canners can offer little jumbo or large, as fresh and frozen shippers outbid them for this size. Frozen shippers are eager for supplies of shrimp because their January 1 stocks were 45% short of last year.

Year's Catch Declines Slightly



Capt. L. J. Gorenflo of Biloxi, Miss., and his 43' party boat "Sailfish", which has a 165 hp. Gray Marine 1952 were off 252,000 from Diesel. The craft is a former LCVP, and was 36' long before conversion.

Louisiana shrimp landings for the year 1952 in principal producing areas totalled 231,000 barrels, compared to 235,000 the year before. Shrimp utilized for purposes other than canning increased 4,000 barrels. Production of oysters last year was 512,000 barrels, the same as in 1951. The catch of hard crabs for the year, totalling 4,440,000 lbs., was off 20%. Salt water landings of 1,646,000 lbs. dropped about 140,000 lbs., while the fresh water fish landings of 1,727,000 lbs. in the previous year.

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Florida Mullet Do Not Migrate Extensively

Results of the first year's tagging experiment on black or striped mullet, carried on by the Marine Laboratory of the University of Miami, cast doubt on the popular assumption that these fish engage in extensive migrations. Most tagged mullet were recaptured within comparatively short distances from the place of tagging, 89.8 percent having traveled not more than 20 miles. A slightly increased tendency to migrate greater distances was shown by fish free the longest period of time and by fish at large over the Winter spawning period. The longest migration by any single specimen was 150 miles.

Tagging operations were accomplished at 12 locations along the Florida west coast from Naples to Pensacola. A total of 1,050 tagged fish were released, with a recovery of 26.5 percent. The maximum recovery for one location was 50 percent.

The striped or black mullet supports the most important commercial fin fishery in Florida. Figures compiled by the Florida State Board of Conservation show that an average of 39,000,000 lbs. of black mullet have been landed each year from 1939 to 1949. In this period mullet accounted for 45.9 percent of the food fish landed in the State.

Mullet are sold mainly in the fresh fish trade, although some are smoked. The chief market is in the southern States. Fishing for mullet is done along the entire Florida coast, but the west coast produces more than the east coast.

There is considerable doubt as to whether the present regulations governing the mullet fishery are in all cases correctly designed, according to Clarence P. Idyll, who supervised the experiment for the University of Miami Marine Laboratory. In a State as large as Florida, he points out, ecological conditions vary widely in different parts of the coastal waters. This variation may significantly affect different mullet populations, with reference to size at maturity and spawning time, and may result in the development of several races which require different regulations.

It has been suggested frequently by those in the mullet industry that more intense fishing takes place in the western part of the State and results in the capture of smaller fish in that area. The tagging experiments were designed to investigate these problems and to show the variation in fishing intensity from one part of the area to another.

Shrimper "Barbara" Sinks

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A Tampa-operated shrimp boat, the *Barbara*, sank January 10 off the Campeche fishing banks near the Yucatan Peninsula. Three crewmen of the vessel were picked up by another Tampa shrimp boat, the *Fair Winds*.

Propose Simplification of Fisheries Laws

A legislative program adopted by Florida members of the Southern Fisheries Association, meeting Jan. 27 in Tampa, included a proposal for the creation of a special committee by the State Legislature to recodify and simplify the 420 Florida laws which now govern the fishing industry. It was recommended that this committee include representatives of the State Conservation Commission, the Fisheries Association, the State Attorney General's office and the University of Miami Marine Laboratory.

The Association's legislative program also urged the Florida Legislature to double the appropriation for research by the Laboratory. Work done by the Miami scientists was said to have been of great value to the State and its fishing industry.

Other portions of the legislative program call for an end to payment of the State gasoline tax for gasoline not used



One of the few women who command a fishing boat is Mrs. Pearl Cutinha of Fernandina, Fla., standing on the deck of the 45" "Dream", of which she is owner and skipper.

on highways, and for sales tax exemption for fishermen's shore equipment, machinery and supplies.

Shrimpers Snare Huge Turtle

Two Key West shrimpers, Capt. Isadore Rampaey and mate Ray Vaughn of the *Ronnie D*. were conducting a "drag" near wreck buoy recently when they snagged an 800-pound "trunkback" turtle. They hauled the huge marine monster around the sea in their nets for 45 minutes before they succeeded in bringing him up on the deck.

utes before they succeeded in bringing him up on the deck. The turtle is called a "trunkback" because of the fact that its back, unlike the shell of a conventional turtle, has the consistency of leather or an old automobile tire. The one caught by the two shrimpers measured more than six feet from stem to stern, and had no claws on its finlike flippers.

Mississippi Shrimper Gets Cornet Fish

A cornet fish, one of the most rare species ever to be caught in the nearby waters of the coast was brought into Biloxi the latter part of January by Capt. Wilmer "Red Ocean" Williams of the shrimp trawler *Moore Seafoods*, fishing for the Moore Seafood Co. Capt. Williams caught the fish in a shrimp trawl off the passes of the Mississippi River in 240' of water.

The unusual variety, which was some five feet long and generally shaped like a pipe, has a long elongated snout with a small mouth opening. A West Indies species, the cornet fish rarely straggles into the Gulf Stream and is seldom found in size more than one foot off the coast of the United States.



Sponge boats tied up at Tarpon Springs, Fla. These craft run only about 42' in length, but are notably seaworthy.

Boston Firm Building New Fillet Plant

Work on a new \$250,000 fish processing and freezing plant, the first unit of a half-million dollar development in South Boston by Bonnie Fisheries, was begun January 20. The new plant, which will have a capacity of at least 5,000,000 lbs. of fish fillets annually, will employ 125 persons in the scaling, cutting, wrapping and freezing de-partments, according to Hy Trilling, president and treasurer of the firm. Major output of the plant will consist of one-pound packages of 20 varieties of frozen filleted fish processed under the Bonnie label, including ocean

"This is the answer of Bonnie Fisheries to increasing foreign competition," Mr. Trilling said. "We are of the opinion that this modern plant, with completely new equipment of the latest design, can put us on a better competitive basis with foreign fisheries."

Located on land purchased from the Port of Boston Authority, the new plant will be of two-story brick construction. It will be close to the Boston Fish Pier, from which Bonnie Fisheries operates its own fleet of fishing boats. The firm is the successor to Genoa Fisheries, Inc., for many years located at Boston Fish Pier.

Gerard Fulham Heads Fisheries Association

Gerard Fulham, treasurer of Fulham Bros., Inc., Boston, Mass., was elected president of the Massachusetts Fisheries Association at a meeting of the directors on January 22. Nelson Harrington of B. F. Phillips Co., Boston, was reelected as vice president.

At the annual dinner meeting of the Association held

at the Hotel Shelton on January 15, John F. Dolan, L. B. Goodspeed, Inc., treasurer; Sidney K. Jones, Booth Fisheries Corp., assistant treasurer; and Patrick J. Callahan, Star Fish Co., secretary; were re-elected. Thomas D. Rice continues as executive secretary of the group.

The board of directors are James S. Carlson, Baker, Boies & Watson Co., retiring president; John R. O'Donnell, O'Donnell-Usen Fisheries; Bartholomew F. Whalen, R. O'Brien Co.; Frank J. Delahoyde, Bay Fish Co.; Patrick J. Callahan; John A. Fulham, Fulham & Herbert Fish Co.; John F. Dolan; Sidney K. Jones, Booth Fisheries Corp.; Anthony Busalacchi, T & J Busalacchi Co.; David Choate, Sr., P. H. Prior Co.; William Sullivan, Cassius Hunt Co.; Harold Randlett, F. E. Harding Co.; and Nelson Harring-

A feature of the annual meeting program was the showing of a film by the Fish & Wildlife Service which depicted the action of nets under water as recorded by underwater cameras in European fisheries.

Usen Trawling Gets High-Liner Honors

High-liner honors for 1952 in Boston go to the Usen Trawling Co., according to an announcement by the New England Fish Exchange. The six-trawler Usen fleet caught over 19 million pounds of fish, which represented about 12% of the total of approximately 174,000,000 lbs. landed at the Boston Fish Pier in 1952.

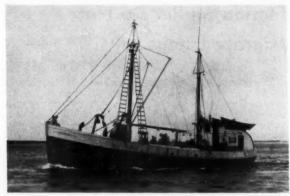
The Flying Cloud, Arlington and the Red Jacket placed first, second and third, to top the list for all trawlers operating out of Boston. Also included in the Usen fleet

are the Cambridge, Winchester, and Brighton.

Irving Usen, who is head of the Usen Trawling Co. and treasurer and general manager of the affiliated O'Donnell-Usen Fisheries Corp. of Boston, Gloucester and Portland, and John R. O'Donnell, sales director, predict an even greater market for frozen fish in 1953 due to the growing consumer demand for packaged fish.

Overhauling and Outfitting Activities

A new Ingersoll-Rand air starting motor has been installed on the Boston dragger Elizabeth B. by Nap. J.



The "Duchess", 68' scalloper built by Frank Deebold, Jr. of Atlantic City, N. J., for owner-skipper Harry Tull of Brigantine. Designed by Albert E. Condon of Thomaston, Me., she is powered with a 6-cylinder, 81/2 x 101/2 Wolverine Diesel, rated 240 hp. at 650 rpm., and equipped with 58 x 44 Columbian propeller and 2:1 Snow-Nabstedt gear.

Hudon, for use with the vessel's four-cylinder Murphy Diesel winch engine.

Hudon also recently installed a new generating set with 40 kw. General Electric generator, 4 cylinder, 96 hp. General Motors Diesel and Ingersoll-Rand air start-ing motor, on the Fish & Wildlife research vessel Delaware.

The Rosalie F. Morse, owned by John F. O'Hara, had her engine overhauled and new liners and rings installed by Hudon, who also equipped her with a new set of MSR8, 115-volt Bowers batteries. Fulham Bros. is agent for the vessel and her skipper is Capt. Ned Lee. She is now at the Monroe Shipvard in Chelsea for installation of a new stern tube and repairs to her hold.

The Thomas D., operated out of Portland, Me. by Fulham Bros., received a complete engine overhaul by Hudon and was fitted with new liners, rings, valves and fuel system. The engine in the Brookline, owned by Norfolk Fishing Co. of Boston, has been equipped with new fuel cam, cylinders and pistons by Hudon.

"Addie Mae" Repowered

The Boston dragger Addie Mae, owned by Capt. Peter Marino, has been equipped with a new Model WM-1197, turbo-charged Wolverine Diesel, rated 225 hp. at 1400 rpm. and fitted with Snow-Nabstedt 3:1 reduction gear.

Named to Advisory Board

Irving Usen of O'Donnell-Usen Fisheries Corp. has been named a member of the Advisory Board, Division of Marine Fisheries, Massachusetts Department of Conservation.

New Bedford Landings Set Value Record in 1952

Value of the fish catch at the port of New Bedford reached an all-time high of \$13,124,734 during 1952, according to figures compiled by the Fish and Wildlife Service. The increased value of the catch during the year was almost entirely attributed to the high prices paid for sea scallops. While these shellfish made up only 16 percent of the catch by volume, they accounted for 55 percent of the total value of the catch.

The average price per pound for sea scallops was 59.52¢, which was the highest ever recorded and represented an increase of 13 percent over the 1951 average. There was a decrease of 5 percent in the total landings of fish as compared to 1951 due partly to the 21-day strike which paralyzed New Bedford last Summer. The major fish landed cod, ye

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landed in 1952, as in 1951, included haddock, blackbacks, cod, yellowtail flounder, scallops and trash.

Arbitrators Decide in Favor of Boat Owners

Federal arbitrators have decided in favor of the boat owners in the "Nantucket clause", the single disputed point in the contracts signed last Summer between the Seafood Producers Association and the Atlantic Fishermen's Union.

James J. Healy, Federal arbitrator, in a letter to John F. Linehan, business manager of the Association, stated: "When a boat the length of which is 60' or more goes into Nantucket or any other port which has no sailing rules, to seek shelter from foul weather or due to other emergencies after fishing in normal fishing operations on outside grounds, the boat may sail on Sundays during the hours from 7 a.m. to 5 p.m. provided a partial trip of fish is aboard and none of the same has been taken out for commercial reasons." The same ruling applies to vessels under 60'.

Turpin Named Port Agent

Victor J. Turpin of New Bedford has been named port agent of the Atlantic Fishermen's Union. He succeeds George E. Feener, who resigned the post in December. Mr. Turpin is a native of Newfoundland, but has been fishing out of the port of New Bedford since 1926.

Record High Price for Scallops

A record high of 72.75ϕ a pound was paid for scallops at the New Bedford auction January 2, when the William H. Killigrew was the only scalloper to land. Her catch amounted to 1,600 lbs.

Several Draggers Repowered

The dragger Victor Johnson, owned by Capt. Louis Skinner, has been repowered with a D337, 170 hp. Caterpillar Diesel at Hathaway Machinery Co. The engine is equipped with Snow-Nabstedt hydraulic 4.4:1 reduction gear, Twin Disc front power take-off and electric starting. The dragger Invader, owned by John B. Waterman of Fall River and skippered by Capt. Cecil Foote, has a new D375, 270 hp. Caterpillar Diesel with Snow-Nabstedt 3:1 reduction gear and Twin Disc 3:1 front power take-off. The engine was installed by Norlantic Diesel, Inc., who also built a new steel trunk and deckhouse and equipped the vessel with Surrette batteries and radar. Willis Basterache is engineer. Both Caterpillar engines were sold by Sid Rideout of Perkins-Milton Co.

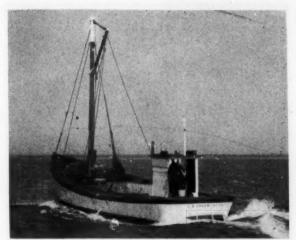
Four New Bedford draggers have been equipped with new Model WM-1905 Wolverine Diesels, rated 250 hp. at 1100 rpm. and fitted with Snow-Nabstedt 3:1 reduction gears. They include the Brant, owned by Capt. Donald McClelland of Marion, Mass., which had her engine installed by Hitchcock Gas Engine Co. of Bridgeport, Conn.; the scalloper Moonlight, owned by Morris Phillips of New Bedford, at Hathaway Machinery Co., Fairhaven; the Nantucket, owned by Martin Bakkin of Fairhaven, installed by Norlantic Diesel, Inc.; and the Janet & Jean, owned by Capt. John Wilhelmsen of New Bedford, which had her engine installed by Carreiro & Lagesse.

Virginia Laboratory Studying Croaker Fluctuations

Biologists at the Virginia Fisheries Laboratory, Gloucester Point, believe that the croaker surveys now being conducted will provide valuable information on the fluctuations in abundance of these fish. The recent decline in croaker landings, from a peak of about 55 million pounds in 1945 to a low of 4 million pounds in 1950, has brought hardship to Virginia's fishing industry.

hardship to Virginia's fishing industry.

Croakers spawn in the Chesapeake Bay region from October until April, according to Dexter Haven, biologist



The "L. R. Smith", 60' fishing boat owned by E. Armistead & Sons, Peary, Va., and powered by a D13000 Caterpillar Diesel. Gulf fuel oil is used.

at the laboratory. During the past few months, Haven has collected numbers of croakers less than an inch long.

The smallest croakers caught in fine-meshed nets in the lower York River cannot be more than two weeks old, according to Haven. Since no fish younger than this nor any croaker eggs have been taken, it is not likely that croakers spawn in the Bay just off the York River or in the River itself. It is believed that spawning occurs in the Atlantic Ocean, and the baby fish move into the Bay almost immediately.

Standard Products Buys McNeal-Dodson

The Standard Products Co., Inc. of White Stone has purchased the assets of the McNeal-Dodson Co., Inc. of Reedville, including the real estate, plant, machinery and equipment, nets, four boats and their equipment.

H. R. Humphreys, Jr., president of Standard Products Co., said that plans are to operate the plants at White Stone and at Reedville. Modern equipment will be installed, and the plant at Reedville will be partially reno-

Crab Dredgers Working Hibernation Grounds

Most of the Tangier crab dredge boats are now working the hibernation grounds in the mouth of the Potomac River. Hard crabs are bringing \$15.00 a barrel in the Crisfield markets, but not many are being caught—from 4 to 12 barrels to the boat a day.

Clammers Doing Well

Tangier clammers are digging on the bars at Whaley Point at the southern end of Tangier Island and on the bars in Tylers Creek, north of the island. According to reports, they are doing well. At Whaley Point, clammers are getting from 300 to 600 clams to the man a day. On the bars in Tylers, they are doing somewhat better, one man having taken 1200 clams in an afternoon.

Hampton Roads Area Landings

Fish landings in the Hampton Roads area were heavy during January, totalling 3,654,000 lbs. More than half of the catch was sea bass, with landings of this variety having amounted to 1,962,700 lbs. Scup was next, with 1,205,400 lbs. The January production of all varieties was double that of December, and nearly a half million pounds ahead of the January, 1952 yield.

Gatling Bros. Representing Wolverine

Gatling Bros. Shipyard, Inc. of Sunset Creek, Hampton, now is representing Wolverine Motor Works, Inc. of Bridgeport, Conn. in the Hampton area. Donald B. Parrish is vice president and manager of the yard.

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- No Batteries or Generator Necessary
- Reliable Starting Under All Conditions
- Easy to Install
- Compact—Powerful—Light Weight
- Practically No Maintenance Expense
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An Air Starting Motor is small and compact. It eliminates the need for banks of storage batteries, generators, voltage regulators and electrical devices. It will pay for itself in one year through savings on battery replacement alone!

Ask your engine distributor to show you the Ingersoll-Rand Air Starting Motors designed for your engines . . . or write for Form 5094, which contains Air Starting Motor selections for all popular engine sizes up to 3000 cubic inch displacement.



Great Lakes Herring Are of Large Size This Season

The commercial herring fishing season is continuing unusually long this Winter in the Green Bay area, which indicates another record harvest. And the herring this Winter, according to Fred Klaus, manager of Dormer Fish Co., Menominee, Mich., are averaging $2\frac{1}{2}$ fish to the pound, which is larger than last season. Some of the Menominee-Marinette Green Bay commercial fishing operators were getting as much as 7,000 lbs. daily from a single set.

Dormer Fish Co. reported that it handled twice the volume of lake herring this Winter when compared with the pack a year ago. Although Dormer is considered the largest buyer of herring in the Menominee-Marinette area, there are several other buyers. Jensen & Jensen, Escanaba; Restelle Fish Co., Houghton; Rogers Fish Co., Gladstone and Escanaba; and Griffin Associated Fisheries of Milwaukee, Wis., are large purchasers of both herring and smelt

Dormer, which had shipped 38 carloads of herring in salt brine up to sometime in December, has dressed for salting about 750,000 lbs. or more and has frozen approximately 250,000 lbs. of lake herring. From Lake Superior's Portage Entry area alone, Dormer dressed out about 800,000 lbs. of herring which were processed at the Menominee plant. Washington Island, Wis. herring netters produced 250,000 lbs. of herring for Dormer Fish Co. before Jan. 1.

Ice Fishing Begins on Green Bay

On Green Bay soon after the New Year arrived ice started to form, and the netters in many instances turned to ice fishing. Early ice netting produced fair commercial quantities of herring, walleyes, whitefish and perch; but the smelt, for some unaccountable reason, are tardy this year.

Commercial fishing on Lake Michigan, generally was better for chubs, walleyes, herring, and whitefish. Smelt hauls were below expectations.

Harold Lamb of Rogers City and Joe Hammell of East Tawas, operating out of St. Joseph, Mich., have been getting fairly good catches of yellow pike. The two fishermen, who fish trap nets on Lake Huron, recently moved part of their operations to southeastern Lake Michigan.

On Lake Superior, Minnesota netters were getting marketable quantities of lake trout and whitefish. At Bayfield, Wis. and adjacent fishing ports where a profitable herring harvest was had, yields of lake trout and whitefish were light but steady. Many boats already are laid up for Winter overhauling, painting operations and replacement of equipment. Catches were light in the Marquette, Munising, and Grand Marais, Mich. area, and somewhat better in the Whitefish Bay region in eastern Lake Superior. Houghton, Mich. fishermen were getting fair commercial quantities of lake trout in mid-lake, however.

By February, commercial netters believe the ice on Lake Huron's Saginaw Bay will be sufficiently thick to safely resume ice operations. Before the ice, commercial catches of perch and herring were fairly good, with some sizable hauls made. Whitefish production was generally fair.

Lake Erie's Michigan waters are closed until March. Many of the Lake Erie fishing tugs from the Detroit River area, Monroe, Mich. section, Ohio region, Kelleys Island area, and Pennsylvania and New York ports already are tied up or beached for Winter overhaul operations.

Back Action on Sea Lamprey

The Michigan Fish Producers Association has thrown its support behind a campaign to rid the Great Lakes

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HALLETT MANUFACTURING COMPANY

World's Finest Low Horsepower Diesel Engines
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waters of the sea lamprey, which has cost commercial fishermen over \$5,000,000 a year for several years in loss of trout yields. At its final session held at Traverse City, Mich. on Jan. 13, the Association adopted a resolution supporting a proposed United States-Canadian treaty which would set up a joint commission to administer the anti-sea lamprey program.

Also called for by the Association was a uniform legal size for whitefish in the Great Lakes States. It went on record as supporting Wisconsin's 17" minimum rule, rather than Michigan's two-pound minimum.

Under a new practice of alternating conventions between the Lower and Upper Peninsula, the 1954 convention will be held in Escanaba, Mich. For the past 17 years the meetings have been held at Traverse City.

Record Lake Herring Caught

Charles Lixie of the C. E. Lixie Fish Packing Co., Port Huron, Mich., is claiming a new world's record for lake herring. The fish, a 4-lb., 14½ oz. whopper, was caught in Lake Huron off Port Huron Lightship. It measured 21½" long and had a girth of 14%". Dr. Albert Hazzard, head of the Institute for Fisheries Research of the University of Michigan, said tha' the lake herring was the heaviest for which the Institut. has a confirmed record.

Warns Fishermen to Mark Shanties

The Michigan Conservation Department has warned ice fishermen that the law requires owners of ice fishing shanties to have their names on the structures in letters not less than two inches high. The law also forbids ice fishermen from causing "any unsightly or unsanitary condition, within or upon said waters, or on the shoreline adjacent thereto." The Conservation Department points out that the legal minimum size for walleyes is 13" in Michigan.

Two Ontonagon Fishermen Die

treated Meehanite Camshaft gear.

everywhere. Other models to 18 HP.

Write today for booklet.

Martin Jones, 77, who for the past 49 years operated the Jones Brothers Fishing Co. at Ontonagon, Mich., died recently. He was born in Norway, and came to the United States in 1899, settling in Menominee. He moved to Ontonagon in 1903.

Rugged, heavy-duty 4-cycle design makes the 5 H P Hallett Model AC-1 the choice of fishermen

Charles Carlson, 61, an early commercial fisherman of Ontonagon, died at the Ontonagon Memorial Hospital. Born in Finland, he became a resident of Ontonagon in 1913. Until his retirement several years ago he was associated with the Johnson and Carlson Fisheries.

Dlugi Fishery Sold to Koss Brothers

Koss Brothers Fisheries, Milwaukee, Wis., recently purchased the entire fishery of Anton Dlugi of that city. Koss will now operate from the Dlugi dock in Milwaukee, and will sell the former Dlugi fishing boat.



The 53' fishing tug "Chambers Bros.", which fishes gill nets out of Holland, Mich. She is powered with a 90 hp. Kohlenberg Diesel, and has Crossley net lifter. The tug is owned by Chambers Brothers of Kenosha, Wis., and is skippered by Clifford D. Chambers.



Cools Engines Direct with Raw Sea Water

Ever since engines were invented, until now there has been no safe way to cool direct with raw sea water. Salt water rust and corrosion cuts the life of marine engines in half. The AQUA-CLEAR Feeder has changed all that—saves hundreds of dollars of expense yet protects the entire cooling system. Good news travels fast and in every fishing field both new and old boats are being equipped with AQUA-CLEAR Feeders.



Throw Your Heat Exchanger Troubles Overboard

Better and Cheaper Than Closed Cooling

Save all the extra expense, space, and complicated piping needed with closed cooling. No cumbersome heat exchangers or exposed keel coolers, no expansion tanks, no extra holes through the hull—cuts maintenance and repair expense, avoids lost time due to breakdowns. Costs less than \$75 for most engines. Easy to install.

Peter Lovasco, owner and captain of the dragger St. Joseph, is typical. Over a year ago, he installed a new \$20,000 Wolverine diesel and equipped it with AQUA-CLEAR Feeder. Months later he took off sections of pipe and said they showed no signs of corrosion.

STOP Rust and Corrosion

in the Entire Cooling System

The AQUA-CLEAR Feeder gives complete protection from all rust and corrosion to cylinder heads, manifolds, water jackets, and liners. Lengthens the life of old engines — keeps new ones from ever rusting. Also prevents salting down the engine, even under abnormal temperatures. Made for all kinds and sizes of marine engines, either gasoline or diesel.

Over 10,000 AQUA-CLEAR Feeders Now in Use!

Write for FREE Folder telling how to save money and get more efficient operation from your engine. Processing Plants . . . use the Aqua-Clear Feeder to solve toughest problems of salt water rusting or corrosion of pipes, tanks, etc. Write for details.

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Georgia Bill Provides For Revoking Licenses

A new bill which would revoke a shrimp boat operator's license mandatorily upon violation of any law or regulation on trawling has been introduced in the General Assembly by Rep. Mose Edenfield of Darien. No operator's licenses are presently required, only the boats being licensed. The bill would require the boat operators themselves to be licensed, too, effective July 1.

The measure would by-pass grand juries, which in McIntosh and Camden Counties sometimes have differed with State fisheries agents in enforcement of the rules and have refused to indict accused fishermen. Grand juries have no part in such cases in Glynn and Chatham Counties.

The matter of reinstatement of a revoked license is left undefined. The bill appears to require the Game and Fish Commission to issue a license to any applicant except one who is under 18 or is physically or mentally incapable of operating a boat. It is felt that the Commission probably would delay in acting on an application for a new license from a fisherman who had lost his privilege to operate, but the bill does not say the Commission can refuse to issue a license.

The new measure would be in addition to other penalties already prescribed by law for violation of regulations by shrimpers, such as fines and jail terms. It is on these that juries in the adjacent counties have refused to act. Revocation of the license would be mandatory for convicted fishermen under the new measure.

The Commission would name one of its agents to conduct a hearing before a license was revoked, and would decide what to do on the basis of a transcript of the hearing testimony. A fisherman could hire a lawyer and appeal to Superior Court if dissatisfied.

Closed Shrimp Season

The State's new ban on shrimping from January 1 through March 15 appears to be hurting crab plants worse than fishermen or shrimp packers. David H. Gould, Supervisor of Coastal Fisheries, has reported finding a generally tolerant attitude toward the shrimping shutdown on the part of fishermen. He acknowledged, however, that crab production, in which Brunswick is a leader, has been hit as a by-product of the shrimping ban.

Crabs bring only 1¢ to 3¢ a pound to the fisherman. Last Winter's record crab production at Brunswick made the crab an appreciable item, 4,000
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however, because boats got up to 4,000 lbs. a day.

A new regulation has been issued in an attempt to maintain crab production. It allows trawling with nets of 4" mesh or larger, which is sufficient size to take crabs but not shrimp. This has helped, but because fishermen are not allowed to get shrimp, too, many boats have left for other States.

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The shrimp ban, which for the first time in Georgia history stops not only trawling in inside waters, but for three miles off the State's coast, is being enforced strictly, according to Mr. Gould. However, compliance has been largely voluntary on the part of the boats, he said. He noted that the law bans only the act of trawling, and not the handling by packers of small shrimp.

The closed season follows advice of fisheries biologists who claim that only small shrimp usually are present in Georgia at this time of year, and that these are non-migratory. When warmer weather comes, the shrimp grow rapidly, and it is claimed that the poundage catch stands to be boosted if the shrimp have been allowed to survive.

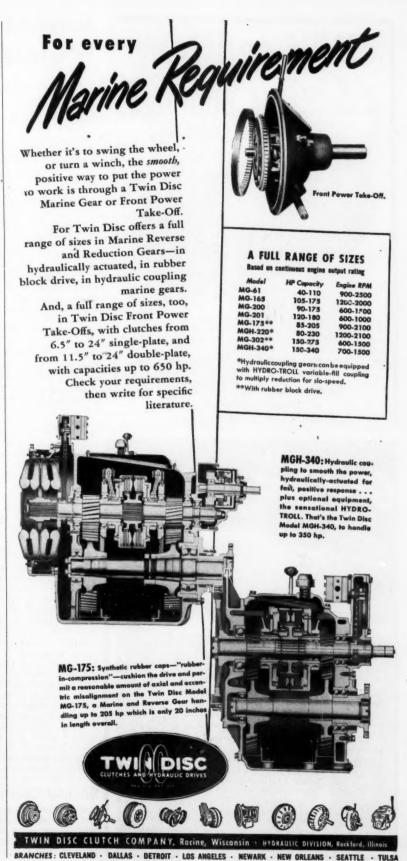
Brunswick and McIntosh County points are feeling the shrimp ban hardest, with Savannah boats able to fish off South Carolina, which has not closed outside waters, and St. Mary's boats able to go to Florida. Good catches have been reported in the Mayport area, and the price is unusually high, 60 to 70¢ a pound for large sizes.

Heavier Landings of Large Haddock

(Continued from page 15)

last year. For the purposes of the prediction calculations it was necessary to assume that the numbers in this age group of two-year-olds would be of average proportions. As it turned out, it was of very unusual strength. The fishermen fished this year class very heavily even before most of the group were 1.5 pounds in weight so that the proportion of scrod in the landings was greatly increased.

The Service now has two men sampling fish at sea on commercial trawlers, both the fish discarded as well as the fish landed. Through their observations it will be possible in the future to obtain a more accurate appraisal of the strength of the one-year-old fish and thus to increase the accuracy of the prediction. It is expected, furthermore, that the research vessel Albatross III will be conducting fishery research again this year. Sampling by the Albatross III will add further to our knowledge of the abundance of the immature fish too small to turn up in the commercial catches.



B.F. Goodrich Cutless Bearings

For Propeller Shafts



Soft rubber, water lubricated, Cutless bearings give years of trouble free service on fishing vessels. Resist heat, oil, and wear. Quiet and protect shafts too. There is a size and type to fit your boat.

Available at Boat Repair Yards and Marine Equipment dealers.

Lucian Q. Moffitt, Inc.

Engineers and National Distributors





SEALER

SEALER

Simply flow rubber Sealer "900" into seams, cracks or joints up to ½-inch and you have a watertight seal! Proven by thousands of boat owners on all types of craft. Handy plastic applicator does the job quick, clean and easy. Also heavy-duty sealers "700" and "800" for openings up to ¾-inch. Ideal for deck seams and as a bedding compound.



NON-SLIP GRIT "500"

Rubber base grit for inside bottoms of small boats. Also for decks, catwalks, companionways, ramps, ladders, etc. on larger craft. Applied with brush or trowel.

See your dealer or write for complete information on these sensational leak-proofing rubber sealers.

MARINE PRODUCTS, INC. 62 HIGH STREET

Maryland Bill Would Promote Private Oyster Farming

A bill which would revise Maryland's oyster laws to encourage private oyster farming was introduced in the State Legislature Jan. 30 by Delegates Samuel Hopkins, A. Gordon Boone and Edward Milanicz, all of Baltimore city and county. The proposed legislation would open the Potomac River to private leasing and increase the area that could be leased in Chesapeake Bay; specifically require the State Department of Tidewater Fisheries to sell to private planters one-third of the seed oysters made available each year from the State beds; encourage the small oyster farm by limiting the acreage any group could hold and by extending credit in the purchase of seed oysters; and concentrate State planting on the "county public rocks", which means the tributary waters of the Bay.

Meanwhile, the State Department of Tidewater Fisheries announced it would seek the enactment of two bills designed to make the State's oyster propagation program self-supporting. One of the bills would give the Department 50 percent of all oyster shells from the packers. The other would raise the inspection tax on oysters to 10ϕ per bushel. Under present law, the Department gets 20 percent of the shells for planting purposes, and is allowed to purchase 30 percent more at prevailing prices.

Winter Planting of Shells Under Way

For the first time in the history of Maryland, oyster shells are being planted on Chesapeake Bay bars on a year-round basis. This is part of the Tidewater Fisheries Department's accelerated oyster rehabilitation program, according to Commissioner John P. Tawes of Crisfield.

Tawes commented: "We have found that many live spat or small oysters are attached to freshly shucked shells which means our Winter planting operation saves oysters as well as time."

Additional evidence of the program's success is found in the 1952 oyster "set"—one of the largest in Bay history. The big set of spat won't be marketable for a while, since it takes approximately three years for an oyster to reach the minimum legal length of 3". However, the Department will have plenty of seed oysters to plant on barren grounds next year.

Favor New Board for Fisheries

Creation of an unpaid board empowered to employ a technical expert to direct the Maryland Department of Tidewater Fisheries was recommended in a nine-point conservation program sponsored by a unit of the Izaak Walton League of America, Inc. The program was backed by the Talbot County chapter of the Maryland division of the League.

Other conservation measures urged by the chapter include: 1. passage of a law creating a closed season for all fish in the tidal water of Maryland during January and February of each year; 2. limitation of seine hauling to daylight hours and restriction of the use of power; 3. upward revision of the legal minimum size of weakfish or trout, hardhead or croaker, white perch and bluefish; 4. immediate simplification and clarification of existing laws relating to fish and fisheries, the work to be done "promptly by the appropriate State agency"; 5. enactment of legislation to promote cooperation between Virginia and Maryland in controlling and conserving the marine life of the Chesapeake Bay and its tributaries.

Somerset County Anti-Leasing Bill

A bill which has been introduced by Senator Phoebus prohibits the leasing of any bottoms in Somerset County for the cultivation of oysters from and after June 1, 1953. It does not affect leases prior to and effective on June 1, 1952, and applies to Somerset County only.

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Here's the remarkable story of a 46-foot Matthews and the tail end of a hurricane.

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"When the Coast Guard boys saw the 12-pound Danforth, their eyes bugged."

It was about midnight on August 31st. Martin Heflin, his family and guests were aboard the HI-BINDER, a 46-foot Matthews, tied up to a dock on one of the Chesapeake's broadest reaches. A few hours later, the HI-BINDER was without power, and was anchored a mile off shore in a black fury of water whipped up by the tail end of an unpredicted hurricane which at times reached gusts of 100 miles an hour. Next day the Coast Guard came alongside to tow the HI-BINDER into Annapolis. As Mr. Heflin says, "In came the line, and finally up came the anchor. When the Coast Guard lads saw it, their eyes bugged. It was a 12 pound Danforth . . . I think the Danforth should be gold plated and retired with honors."



Mr. Heflin had a heavier anchor on board, but never had to use it.
Such experiences prove again the fact that Danforth Anchors
hold better than any anchor ever designed.

DANFORTH ANCHOR

2137 ALLSTON WAY, BERKELEY 4, CALIF.

Fishing Fleets Gather Annually At Fayette, Mich. for Blessing

Each year since 1949 during middle or late Summer the port of Fayette, Mich., has been the scene of the picturesque ceremony of the blessing of the fishing fleet. The tugs involved, besides those of the Fayette fleet, are mainly from Fairport, Escanaba, Gladstone, Grand Marais, Stonington, and Menominee, Mich., as well as Marinette, Wis.

The blessing of the fishing fleet is an ancient rite firmly founded in Mediterranean cultures. In its age old pageantry it is highly reminiscent of the days when Jesus of Nazareth walked among fishermen and taught on the netstrewn shores of the Sea of Galilee. Its prayers and readings reflect the eternal power which Christ exercises over the winds, the waters and the fishes as well as over the hearts of the fishermen themselves. Long customary among the fishing fleets of New England and New Orleans, the rite of the blessing of the fleet made its appearance on the Great Lakes, in its solemn form at least, on July 4th, 1949.

St. Peter the Fisherman Parish is one of the last living remnants of the once-thriving community of Fayette. The blessing of the fleet now takes place amid the rambling ruins and rotting docks of the old furnace town that is now almost entirely deserted. In its day, Fayette numbered well over a thousand inhabitants. Fayette Harbor, bordered by verdant woods and surrounded by the ruins of the once-proud past, sets in the shadow of a great limestone bluff—a fitting stage on which the drama of the Eternal Galilean is re-enacted.

The blessing of the fleet is given each year by the Most Rev. Thomas L. Noa, D.D., Bishop of Marquette. Surrounded by the priests of the area vested in sacred vestments and attended by 4th Degree Knights of Columbus in colorful uniform, the Bishop rides in a special boat

that travels from craft to craft in the crowded harbor. While the ceremony is carried on under the auspices of the Catholic Church, all faiths are represented in the thousands of people from all over Michigan's Upper Peninsula and Northern Wisconsin that crowd the shores.

Last year's blessing ceremony, the fourth annual one, was held July 20. The day's festivities began with an outdoor mass at the Fatima Grotto on the grounds of St. Peter's Church, followed by a dinner served near the harbor at noon. The afternoon program commenced with a band concert and parade of floats. The Blessing then followed on the waters of the harbor amid the gaily decorated fishing boats. One of the most impressive parts of the ceremony was the memorial service, during which wreaths were cast onto the water in memory of those members of the fishing industry who lost their lives in the Great Lakes.



Bishop Noa blessing fishing fleet at Fayette, Mich.



Why Cat Power Can Serve You Better

There are many things to consider when you're picking the power for your fishing boat:

The engine must be DEPENDABLE.

The engine must be ECONOMICAL.

The engine must be LONG-LIVED.

The engine must have SERVICE.

Higino Rendeire, Stonington, Conn., considered all these facts . . . and picked a Cat D13000 to power his fishing boat, the "America", shown above. We can prove that Cat Diesels fill the bill . . . may we show you?

H.O. Penn Machinery Co.

140th Street & East River, New York, N. Y. Dutchess Turnpike, Poughkeepsie, N. Y. 496 Jericho Turnpike, Mineola, L. I. 136 Day St., Newington, Conn.

Connecticut Lobstermen Favor Keeping Hatchery Open

A resolution calling on the State not to close the lobste hatchery at Noank but to expand it into a marine experimental station was adopted by about 40 lobstermen an other interested parties at a meeting Jan. 23 at Groto Town Hall. It was suggested during the meeting that the hatchery's program for breeding flatfish, abandoned in 1938, be reinstated.

A special commission appointed by Governor Lodge to investigate administrative procedures of the Fisheries and Game Department recommended closing the Noan hatchery, the only solely State-operated lobster hatcher in New England. Basis for the commission's recommendation was that it "has been unable to obtain from an qualified source any assurance this program is of value to the lobstermen of the State."

The hatchery has been in existence more than 40 year Last year it was operated for \$17,830 plus \$5,000 used to buy egg-bearing lobsters from fishermen. During the year, 2,971 brood lobsters were bought and 974,00 "fourth stage" lobster fry were planted in State water. Only one in 5,000 of these fry grows to maturity, according to U. S. Fish & Wildlife Service figures.

Dr. Russell P. Hunter, superintendent of the State Fish eries and Game Department, told the group his Department has included an item for operation of the hatcher in its 1953 budget and that it is expected to be approve by the Legislature.

Niantic River Scallop Season Extended

Scallopers in the Niantic River got an extra month open season as the joint Waterford-East Lyme scallo commission granted the fishermen's request to move th closing date to Feb. 28. Chief Scallop Warden Adelbert I Burr and his assistants have moved large numbers a seed scallops from the shallows to deeper water to hel develop next year's crop.

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"Connie M." Nets Mine

The Stonington dragger Connie M., Joe Madeira skippe and owner, netted another eight foot navy practice min last month and brought it into Longo's Dock. A Groto Submarine Base squad reclaimed it.

Electric Fishing

(Continued from page 13)

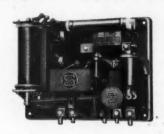
the movements of sardines can be controlled effectivel by means of sawtooth shaped pulses of 133 milli-second duration repeated 5 times a second. This indicates the the best waveform and pulsing rate have to be determine experimentally for each kind of fish.

The principal limitation to the application of electr fishing methods in the sea in a practical way at preser is imposed by the radial spreading of the current from the electrodes. Because of this spreading of the current the power capacity of the electrical apparatus aboard the ship must be very great to set up a current density of few milli-amperes at a distance of only a few yards from an electrode.

Future research in this field should be directed towar finding methods of concentrating or confining the electrifield to a limited volume of water between the electrod in so far as possible. Laboratory experiments should albe carried out to determine the correct current densition for producing the conditions of electro-taxis and paralisis in various kinds of commercially valuable fishes, well as the best waveform, pulse length, and pulse rato use with these fishes. Having ascertained these facto it will be possible to estimate the electrical power required and proceed with the assembly of the apparatneeded for applying electrical methods of fishing to particular fishery in a practical way.

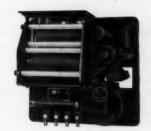
ATLANTIC FISHERMAN - FEBRUARY, 19

FETY" Controls are AUTOMATIC Controls

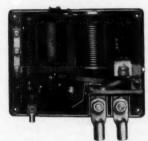


"SAFETY" Generator Regulators . . protect valuable electrical devices essential to every ship. Their use automatically controls voltage and also limits the current output to the maximum capacity of the gefferator.

"SAFETY" Load Regulators . . . reduce voltage to proper value and maintain this line voltage for ships' lighting, depth recorders, communication systems and other electrical equipment.



"SAFETY" Reverse Current Relays ... eliminate manually operated switches ... automatically connect or disconnect generators from battery and load.



"SAFETY" Generators and Motor Alternators . . . available for marine installations. Consult the Marine Catalog or contact our Marine Division for information concerning "Safety" Marine Products and our district agents.

Relieve your engineers of manually operated battery controls...specify "Safety" automatic electrical controls and generating equipment.

MARINE DIVISION P.O. BOX 904

THE SAFETY CAR HEATING COMPANY INC NEW HAVEN, CONNECTICUT

"SAFETY" MARINE PRODUCTS INCLUDE: Variable and Constant Speed Generators . Generator Regulators Load Regulators . Reverse Current Relays . Motor Generators . Motor Alternators.

Shrimp Trawlers in Florida Test Five-Blade Propellers

Recent experiments with propellers on shrimp trawlers led to the introduction last month of a 5-blade wheel by Michigan Wheel Co., Grand Rapids, Mich. The Company made up a series of three, four and five blade propellers of various shapes and areas and tried them out in actual service in the field. Besides tests run by the firm's field men, boat operators ran the propellers for weeks at a time, carefully keeping records as to the general per-formance, fuel consumption, vibration, speeds, etc.

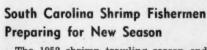
Starting point of the testing campaign was at Thunder-bolt, Ga., where Capt. Louis Ambos made available his fleet consisting of the Powhatan and three identical boats.

These are 65' round-bottom shrimpers with Caterpillar D13000 Diesels and 2:1 gears. The four were equipped with the various testing propellers, and in addition to shrimping, made the run down to Key West and back.

According to Capt. Ambos, the 5 bladed propeller increased boat speed, improved the power and reduced vibration. It is reported that the four boats tested made the run from Thunderbolt, Ga. to Key West, with the 5-blade wheel using less fuel (47 gals.) for the entire trip. They were able to make the tow of the webbing with less engine rpm. than before, which resulted in a fuel saving.

Similar tests were made with the 5-blade wheel, which has been designated the "Star", at Fort Myers, Fla. These were arranged through Southern Propeller Co. and Harry Saunders Boat Yard, with the new type propeller being used to run to Campeche, Mexico and back.

It is claimed that in tests the 5-blade wheel excelled the other types from 3% to 9% in the following: 1. boat speed running light; 2. boat speed running under tow; and 3. fuel consumption. The reduction in vibration at the stern is expected to lessen the rack and strain on hull and fit-



The 1952 shrimp trawling season ended December 31 with reports varying from "good" to "poor" as trawlermen prepared to wait out the two months before the 1953 season opens March 1. The 1952 season was marked by suits brought by Beaufort trawlermen in an effort to open inshore waters to commercial trawling; a decision by the South Carolina Supreme Court which upheld the right of State inspectors to seize boats found operating in coastal waters without State licenses, and an announcement by Wildlife Resources Commission Chairman George Warren that a year-long survey is planned on shrimp life along the coast.



One of the 65' shrimpers owned by Capt. Louis Ambos, Thunderbolt, Ga., which tested the new 5-blade Michigan propeller.

ATLANTIC FISHERMAN - FEBRUARY, 1953

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Equipment and Supply Trade News

Lathrop Engine Modernization Program

Walter F. "Bud" Lathrop, president and treasurer of The Lathrop Engine Co., Mystic, Conn., has announced plans for new and improved engines, new management personnel, new offices, and new production techniques.

Earlier this year the Lathrop Company appointed the John J. Plocar Co., Management Engineers, of Stamford, Conn. to install and direct a program of modernization. Recently, Plocar staff engineer Raymond P. Wright, who directed the program, was appointed General Manager

J. J. Maroney is another new addition to the Lathrop staff in the capacity of Production Manager. Howard E. Fuller, who has been with the Company for many years as Assistant Treasurer, has been promoted to the office of Director of Sales and Purchases. E. A. Harrison has been promoted to Chief Engineer, and Albert E. Ricker has been advanced to General Superintendent.

Product improvement has been highlighted by the sixcylinder LH Models which now provide a choice of either manual or hydraulic control of reverse gears. Plans for increasing actual delivered power in several models are now in the last stages of test and completion, and a light weight Diesel in the 100 hp. class will be introduced

this year.

An old Colonial home which formerly adjoined the Lathrop Company's property has been moved to join the main plant, and remodeled into a general office. A picture bay provides a display window on the first floor, which eventually will become a show and sales room for engines and ship chandlery supplies. The general offices fill the second floor, with Mr. Lathrop's office and the Engineering Department occupying the third floor.

This comprehensive modernization program climaxes 56 years of manufacturing marine engines. It was Mr. Lathrop's grandfather who pioneered in the production of

one of the first 100% marine engines.

Sudbury Introduces Automatic Pilot

Sudbury Laboratory of South Sudbury, Mass, has introduced a new automatic pilot which has a super sensitive electrically operated rudder angle indicator that shows the exact position of the rudder at all times. Without a rudder indicator an inexperienced operator is apt to over-steer.

Another important feature is the "Delayed-Action" incorporated in the pilot which can be adjusted to meet



The new Nordberg 130 hp. Tarpon 6-cylinder, 3000 rpm., 4 x 41/4 engine with 320 cu. in. displacement. It is available with Nordberg direct or reduction gear drive in ratios of 1.88, 2.44, 3.32 and 4.12 to 1, and has engine lubricated planetary-type reverse gear and internal helical gear and pinion type reduction gears. The flywheel is machined to take front clutch power take-off or sheaves. Paragon hydraulically-operated reverse and reduction gears are optional.

adverse sea conditions. The adjustable "Delayed-Action" also makes it possible for the skipper to harmonize his own steering habits with that of the pilot. It gives the

boat a chance to answer the helm, to stop "fish tailing".

While the Sudbury automatic pilot is operated electrically, it is of simple design. Because this pilot does not incorporate electronic units that require installation and servicing by a man trained in electronics, it is easily put

in by any competent electrician.

The pilot is equipped with two push buttons for manual electric control of the boat; one will turn the boat to port, the other to starboard. The push buttons can be put on any length extension cord, so that the skipper can have push button control from any point in the boat.

Densmore, Warehouse Manager for Wickwire

Sam W. Densmore has been appointed to the newly-created position of warehouse manager for the Wickwire Spencer Steel Div. of The Colorado Fuel and Iron Corp. He will be in charge of standardizing warehouse procedures and operations within the Wickwire Division, and will continue to be headquartered at 80 Federal St., Boston, Mass.

Mr. Densmore joined the then Wickwire Spencer Steel Co. in 1928. He is a graduate of the Annapolis Naval Academy and holds the rank in



the Inactive Reserve of Lieutenant Commander. With the exception of a tour of duty of 41/2 years during World War II, Densmore served in various capacities in Wickwire's New England Mills. His most recent position was that of New England district sales manager. That position now will be filled by Charles P. Harlow.

Bulletin on New Surrette Shore Converter

Surrette Storage Battery Co., Inc., Salem, Mass., has just issued a bulletin on its new Model SCA self-regulating marine shore converter. This device permits free use of the electrical equipment on a boat, and eliminates running the auxiliary generator.

The new Surrette marine converter insures efficient working of the battery by constantly checking its condition of charge. The output of the converter is automatically varied to meet the load demand up to its limitations, forcing the batteries to carry peak loads exceeding the capacity of the converter. The battery is then automatically recharged—and then automatically floated until a new power demand is received.

The Surrette shore converter is equipped with an A.C. voltmeter which shows supply voltage at each dock. By setting the dial to correspond with the meter reading, the operator can compensate for the variations in voltage

existing at different docks.

Detroit Diesel Maintenance Log Book

A Preventive Maintenance Log Book, which outlines the various service operations to be performed regularly on GM Diesel marine propulsion engines and also provides convenient forms for logging these operations when completed, has been prepared by the Detroit Diesel



T stands for an organization long experienced in the sales and servicing

of the best in Marine Engines-

CATERPILLAR DIESELS

Our Sales, Parts, and Service Departments are all committed to the principle that the worth of the product it sells depends upon the service given by the seller. You can rely on PEMCO.

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TEL. SOUTH BOSTON 8-4660

EXPERT RECONDITIONING ON PROPELLERS OF ALL SIZES . . .



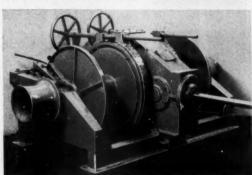
PRECISION EQUIPMENT and expert workmen insure an accurate repair job. We guarantee our work. Estimates gladly furnished. Send your damaged propeller to us for free inspection and report.

HYDE WINDLASS COMPANY

BATH, MAINE

PROPELLERS

Hathaway HOISTS AND WINCHES



Model 639-50. Available with 18", 22", 26" and 30" wide drums.

AMERICAN BOSCH SERVICE STATION

Bendix Scintilla and all types of fuel injection equipment, service and parts

Bronze and Monel Shafts Stern Bearings Stuffing Boxes • Fuel and Lube Oil • Ice

HATHAWAY MACHINERY Co., INC.

HATHAWAY-BRALEY WHARF CO., INC. FAIRHAVEN, MASSACHUSETTS When the spray is like needles

Seams are sealed and the whole garment's vulcanized to make it watertight. Specially developed compounds provide greater resistance to sun, water and abrasion. Roomy fit for freedom and comfort; rubber work clothing made to withstand long wear.

- U.S. SAFE AND SEINE SUIT
- extra roomy vulcanized watertight seams underarm ventilation rust-resistant ball and socket
- overalls: large bib front, adjustable shoulder straps.
 - U. S. SQUAM HAT
- reinforced water-shed brim
- U. S. RUFF-N-TUFF EUREKA SUIT

 - vulcanized watertight seams
 inside fly front
 rust-resistant ball and socket
 fasteners
 underarm ventilation
 overalls: bib front, adjustable elastic suspenders.

 - TRAWLER BOOTS

 - Black thigh Felt lined "Fin-Guard" vamp

* SOLD ONLY THROUGH INDUSTRIAL AND RETAIL STORES *





RUBBER FOOTWEAR

UNITED STATES RUBBER COMPANY

Rockefeller Center . New York

Engine Division of General Motors, and is available from its marine distributors and dealers.

The book outlines the various things to be done at the end of 8-hour, weekly, 500- and 1000-hour periods. It is arranged so that the temporary omission of any recommended service operation can be readily detected and performed. Information on all phases of Diesel engine operation, including the GM hydraulic marine gear, also is included.

A running record of hours operated, repairs made and the amounts of lube and fuel oil used provides an accurate account of operating costs. Proper use of the book also will indicate the approaching need of repairs or adjustments so that the possibility of power emergencies arising can be largely eliminated.

According to the Detroit Diesel Engine Division, these properly-timed maintenance procedures and checks carried out as indicated in the book, will help owners of all types of marine craft to reduce their operating costs and get trouble-free performance and long life from their power units.

Kirby Offers Leaflet on Boat Painting

Just off the press in time to help plan Spring fitout is the "Kirby Guide to Care of Your Boat". The booklet is full of tips and reminders on painting and preparation, based on Kirby's experience of 107 years in the marine paint business. Included are rules for painting wood and steel boats, as well as a listing of Kirby's complete marine paint line. Cartoons provide a chuckle on each page and highlight every phase of surface protection. For a free copy of the pamphlet, write George Kirby, Jr. Paint Co., 24 Wall St., New Bedford, Mass.

Roebling Now Subsidiary of Colorado Fuel

The Colorado Fuel and Iron Corp., the nation's ninth largest steel producer, has completed the acquisition of the plants, inventories and business of John A. Roebling's Sons Company, Trenton, N. J. The Roebling properties will be operated by John A. Roebling's Sons Corp., a newly-formed and wholly-owned subsidiary of Colorado Fuel and Iron, with Charles Roebling Tyson as executive vice-president.

In a tribute to the Roebling Company, A. F. Franz, president of the new corporation, said: "We will operate the Roebling plants under the Roebling name in order to insure the continuity of one of the most respected names in the steel business. We are looking forward to maintaining both the high quality of Roebling products and the good relations with employees and customers which the Roebling firm has established in its 112 years of progress.



John W. Mulford, 51-year-old president of Gray Marine Motor Co., who was elected president of the National Association of Engine and Boat Manufacturers, at the 48th annual meeting of the organization in New York during the recent National Motor Boat Show. Mulford is the son of O. J. Mulford, founder of Gray Marine in 1906.

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Portable Has New Catalog on Searchlights



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Portable Light Company's No. 173 "Half-Mile-Ray" searchlight.

Now available upon request to Portable Light Co., Inc., 216 William St., New York 38, N. Y., is a new and attractive 32-page catalog on its line of searchlights and sirens. Profusely illustrated, the booklet describes and gives specifications for the various Half-Mile-Ray, One-Mile-Ray and Raylite search-lights, as well as the Sireno sirens.

In making reflectors for the searchlights, Portable Light Co. utilizes the latest scientific developments to concentrate and project a ray of great carrying power. All of the reflectors are chrome plated to Navy specifications.

throughout of brass and bronze—no other metal is used—and will therefore withstand any climatic conditions. They are assembled in such a manner that all parts are quickly interchangeable.

Hughes New Manager Cleveland Diesel

Tom E. Hughes was made general manager of the Cleveland Diesel Engine Division of General Motors, effective January 1. Mr. Hughes succeeds George W. Codrington, who is retiring after 36 years of service with the Corporation. Mr. Codrington has been general manager of Cleveland Diesel since 1938 and a vice-president of General Motors since 1942.

Hughes, 42, has been assistant general manager of Cleveland Diesel since October, 1951. He entered the employ of Cleveland Diesel in 1933, working as a test engineer until 1935. In 1936 he was transferred to the engineering department. In 1937-38 he was engaged in service engineering work on the development of the Diesel railroad engine. Later in 1938, he was transferred to the West Coast in the capacity of service and engineering representative for the Cleveland Diesel Engine Division submarine program for the United States Navy at San Diego and the Mare Island Navy Yard in California.

In 1939, Hughes was transferred to Washington, D. C., as assistant manager of the Cleveland Diesel Washington office, and in January, 1941, he was made manager of that office, remaining there throughout the war years handling Government sales. In September, 1946, he was transferred to Cleveland as general sales manager.

Twin Disc Booklet on Couplings, Converters

To help both the user and manufacturer of powered equipment to better understand the application of hydraulic couplings and torque converters, Twin Disc Clutch Co. of Racine, Wis. is offering a 32-page special issue of "Production Road", titled "Coupling or Converter?"

The new "Coupling or Converter?" issue uses laymen's

The new "Coupling or Converter?" issue uses laymen's terminology to acquaint the reader with the meaning and characteristics of torque and the effect torque has on both driving and driven equipment. Illustration and text explain why a hydraulic coupling transmits only input torque, whereas a hydraulic torque converter multiplies torque—with specific advantages of each type drive as applied to all kinds of industrial machinery.

Photographic stories here and around the world depict applications of the various Twin Disc hydraulic drives—including industrial torque converters, hydraulic couplings, and the various package drives based on the coupling, including the Hydro-Sheave, Hydro Wynd, hydraulic power take-offs, disconnecting coupling units, and marine gears incorporating hydraulic couplings. Early day hydraulic drive installations are contrasted with those of today.

WORLD'S BEST BUYS IN MARINE ENGINES for fishing boats, work boats -for any commercial use! Model B, 60 h.p. Model K. 95 h.p. Model M. 130 h.p. Model W. 160 hp. Horsepower for horsepower, you can't buy a better marine engine for smooth, dependable operation and more years of hard service at low upkeep cost than a compact, power-packed Chris-Craft! Read what this user says: "Off-shore lobster fishing in my new 30 footer, the CADET," says Milton A. Philbrook, Westbrook, Maine, "requires a steady and dependable engine that can handle a heavy sea, and my Chris-Craft 95 h.p. engine really fills the bill. I have owned various lobster boats and have been actively fishing since 1910. This experience has given me a chance to compare engines, and I've found that Chris-Craft is the best buy on the market today!" Chris-Craft Marine Engines are available in 60, 95, 105, 120, 130, 131, 145, 158 and 160 h.p. with reduction drives and opposite rotation for most models. See your Chris-Craft Dealer or mail coupon for FREE catalog todayl Buy NOW! CHRIS-CRAFT CORP., MARINE ENGINE DIV., ALGONAC, MICH. WORLD'S LARGEST BUILDERS OF MOTOR BOATS CHRIS-CRAFT CORP., Algonac, Mich. FREE! Send FREE Chris-Craft Marine Engine Catalog to:

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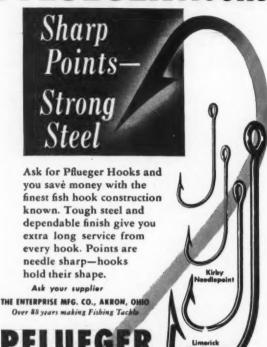
ATLANTIC FISHERMAN - FEBRUARY, 1953

39

Co., e and ation ord is

1953

PFLUEGER Hooks



GREAT NAME IN TACKLE umbian for "Lenny Boy" dependable daily duty, for economy in fuel and maintenance, — "Lenny Boy" swings a 48 x 44 four-bladed COLUMBIAN. COLUMBIAN BRONZE CORPORATION

Freeport, Long Island, New York

Fish Landings

For Month of January

Hailing fares. Figure after name indicates number of trips.

BOSTON

Ave Maria (Dragger) (8) 17,100 Michael G. (4) Ave Maria (O.T.) (1) 65,500 Michigan (2) Mother of Grace (8) Bay (3) 206,600 Benjamin C. (1) 117,000 Bonnie (2) 152,900 Bonnie Lou (3) 134,500 Ohio (2) Olympia La Rosa (3) California (2) 40,800 Calm (2) 231,500 Ohio (2) Phantom (2) Catherine B. (LT.) (2) 203,400 Philip & Grace (1) Pilgrim (2) Catherine B. (LT.) (2) 20,200 Catherine B. (LT.) (2) Catherine B. (LT.) (2) Catherine B. (LT.) (2) 22,500 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Dorchester (2) 249,000 Rosa (2) Roma (Dragger) (9) Braic (4) Prince (4) Prince (2) Roma (Dragger) (9) Prince (4) Prince (4) Prince (2) Roma (Dragger) (9) Roma (Dragger) (9) Roma (Dragger) (9) Roma (Dragger) (9)	9,700 3,600 25,600 7,400 90,000 147,600 6,400 10,200 26,600 176,600
Adventure (2) Agatha & Patricia (3) Agatha & Patricia (3) Annie & Josie (9) Anlington (2) Atlantic (2) Atlantic (2) Ave Maria (Dragger) (8) Ave Maria (Dragger) (8) Barbara C. Angell (2) Barbara C. Angell (2) Barbara C. (1) Brookline (1) Brookline (1) Brookline (1) Brookline (1) Brookline (1) Brookline (2) Catherine B. (Dragger) (3) Brookline B. (Dragger) (4) Brookline B. (Dragger) (3) Brookline B. (Dragger) (4) Brookline B. (Dragger) (5) Brookline B. (Dragger) (7) Brookline B. (Dragger) (8) Brookline B. (Dragger) (9) Brookline B. (Dra	3,600 25,600 7,400 90,000 147,600 6,400 188,400 10,200 26,600
Agatha & Patricia (3) 63,400 Marietta & Mary (2) Annie & Josie (9) 9,300 Mary & Josephine (1) Atlantic (2) 123,900 M. (C. Ballard (2) Michael G. (4) Michigan (2) Michigan (2) Michael G. (4) Michigan (2) Michigan (2) Michael G. (4) Michigan (2) Michael G. (4) Michigan (2) Michigan (25,600 7,400 90,000 147,600 6,400 188,400 10,200 26,600
Annie & Josie (9) Arlington (2) Atlantic (2) Atlantic (2) Ave Maria (Dragger) (8) Ave Maria (Dragger) (8) Ave Maria (Dragger) (8) Barbara C. Angell (2) Barbara C. Angell (2) Barbara C. (1) Benjamin C. (1) Bonnie (2) Bonnie Lou (3) Bonnie Lou (3) Brookline (1) California (2) California (2) California (2) Calm (2) Catherine B. (Dragger) (3) Catherine T. (2) Catherine T. (2) Catherine T. (2) Catherine T. (2) Catherine C. (1) Dorchester (2) Diana C. (11) Dorchester (2) Diana C. (11) Dorchester (2) Elizabeth B. (1) Emily H. Brown (1) Emily H. Brown (1) Esther M. (2) Mary & Jennie (5) Mry & Jennie (5) Mr. C. Ballard (2) Mother of Grace (8) Michigan (2) Mother of Grace (8) Mother of Grace (8) Mother of Grace (8) Mother of Grace (8) Mother of Grace (8) Mary & Jennie (5) Mr. C. Ballard (2) Mother of Grace (8) Papuro B. (2) Papuro B. (2) Phantom (2) Philip & Grace (1) Pligrim (2) Plymouth (2)	7,400 90,000 147,600 6,400 188,400 10,200 26,600
Arlington (2) Atlantic (2) Ave Maria (Dragger) (8) Ave Maria (O.T.) (1) Barbara C. Angell (2) Bay (3) Benjamin C. (1) Bonnie (2) Bonnie (2) Bonnie Lou (3) Brookline (1) Brookline (1) California (2) Calm (2) Cambridge (2) Catherine B. (L.T.) (3) Catherine B. (L.T.) (40 Bay (3) Catherine B. (L.T.) (2) Catherine B. (L.T.) (3) Catherine B. (L.T.) (40 Bay (3) Catherine B. (L.T.) (2) Catherine B. (L.T.) (3) Catherine B. (L.T.) (40 Bay (3) Catherine B. (L.T.) (2) Catherine B. (L.T.) (3) Catherine B. (L.T.) (40 Bay (3) Catherine B. (L.T.) (2) Catherine B. (L.T.) (3) Catherine B. (L.T.) (40 Bay (3) Catherine B. (L.T.) (40 Bay (3) Catherine B. (L.T.) (40 Bay (40 Bay (40 Bay (41 Bay (41 Bay (42) Bay (41 Bay (42) Bay (41 Bay (42) Bay (42) Bay (41 Bay (42) Bay (43 Bay (43 Bay (43) Bay (43 Bay (43) Bay (43 Bay (43) Bay (44 Bay (43) Bay (44) Bay (44) Bay (43) Bay (44) Bay	90,000 147,600 6,400 188,400 10,200 26,600
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Ave Maria (Dragger) (8) 17,100	6,400 188,400 10,200 26,600
Ave Maria (O.T.) (1) 65,500 Michigan (2) Mother of Grace (8) Barbara C. Angell (2) 170,400 Benjamin C. (1) 117,000 Benjamin C. (1) 152,900 Bonnie (2) 152,900 Brookline (1) 81,500 Olivo (2) Brookline (1) 81,500 Olivo (2) Calim (2) 231,500 Cambridge (2) 203,400 Pinlip & Grace (1) Pilipim (2) Catherine B. (Dragger) (3) 62,800 Catherine B. (L.T.) (2) 10,200 Catherine T. (2) 82,500 Pincess (5) Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Pinlip & Grace (2) Pinlipim (2) Catherine B. (Dragger) (3) 62,800 Pincess (5) Pincess	188,400 10,200 26,600
Barbara C. Angell (2) 170,400 Bay (3) 206,600 Benjamin C. (1) 117,000 Bonnie (2) 152,900 Bonnie Lou (3) 134,500 Ohio (2) California (2) 40,800 Cambridge (2) 203,400 Catherine B. (L.T.) (2) 10,200 Catherine B. (L.T.) (2) 22,000 Catherine B. (L.T.) (2) 22,000 Catherine B. (L.T.) (2) 10,200 Catherine B. (L.T.) (2) 10,200 Catherine B. (L.T.) (2) 10,200 Catherine B. (L.T.) (2) 141,100 Crest (3) 289,500 Quincy (2) Diana C. (11) 16,800 Racer (2) Dorchester (2) 178,500 Red Jacket (2) Drift (2) 249,000 Rosie (4) Elizabeth B. (1) 72,200 Emily H. Brown (1) 98,300 Esther M. (2) Coned (2) Esther M. (2) 213,000 Fincas (6) Mother of Grace (8) Nancy B. (2) Neptune (2) Pam Ann (2) Phantom (2) Phantom (2) Phantom (2) Philip & Grace (1) Pilgrim (2) Princess (5) Quincy (2) Racer (2) Roma (Dragger) (9) Rosie (4) Racer (3) Esther M. (2) 213,000 Sacred Heart (8)	10,200 26,600
Barbara C. Angell (2) 170,400 Bay (3) 200,600 Nancy B. (2) Benjamin C. (1) 117,000 Bonnie (2) 152,900 Brookline (1) 81,500 Olivmpia La Rosa (3) California (2) 40,800 Pan Ann (2) Calmorlidge (2) 203,400 Plilip & Grace (1) Catherine B. (Dragger) (3) 62,800 Catherine B. (L.T.) (2) 10,200 Catherine T. (2) 25,500 Plimin (2) Catherine T. (2) 25,500 Princess (5) Comet (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Catherine (2) 178,500 Red Jacket (2) Drift (2) 249,000 Rosie (4) Elizabeth B. (1) 72,200 Rush (2) Emily H. Brown (1) 98,300 Esther M. (2) Sacred Heart (8)	26,600
Bay (3) 206,600 Nancy B. (2) Benjamin C. (1) 117,000 Neptune (2) 152,900 Shonie (2) 152,900 Ohio (2) Olympia La Rosa (3) Ohio (2) O	
Bonnie Lou (3) 134,500 Olympia La Rosa (3) California (2) 40,800 231,500 Olympia La Rosa (3) California (2) 231,500 Olympia La Rosa (3) Pam Ann (2) Phantom (2) Catherine B. (LT.) (2) 203,400 Philip & Grace (1) Pilgrim (2) Catherine B. (LT.) (2) 82,500 Princess (5) Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Portit (2) 249,000 Rod (Dragger) (9) Rosi (4) Princess (5) Compute (2) Princess (3) Catherine T. (2) Red Jacket (2) Princess (3) Catherine T. (2) 249,000 Rosi (4) Rosi (4) Rosi (4) Rosi (4) Elizabeth B. (1) 72,200 Rush (2) Sacred Heart (8)	
Bonnie Lou (3) 134,500 Olympia La Rosa (3) California (2) 40,800 231,500 Olympia La Rosa (3) California (2) 231,500 Olympia La Rosa (3) Pam Ann (2) Phantom (2) Catherine B. (LT.) (2) 203,400 Philip & Grace (1) Pilgrim (2) Catherine B. (LT.) (2) 82,500 Princess (5) Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Portit (2) 249,000 Rod (Dragger) (9) Rosi (4) Princess (5) Compute (2) Princess (3) Catherine T. (2) Red Jacket (2) Princess (3) Catherine T. (2) 249,000 Rosi (4) Rosi (4) Rosi (4) Rosi (4) Elizabeth B. (1) 72,200 Rush (2) Sacred Heart (8)	170,000
Bonnie Lou (3) 134,500 Olympia La Rosa (3) California (2) 40,800 231,500 Olympia La Rosa (3) California (2) 231,500 Olympia La Rosa (3) Pam Ann (2) Phantom (2) Catherine B. (LT.) (2) 203,400 Philip & Grace (1) Pilgrim (2) Catherine B. (LT.) (2) 82,500 Princess (5) Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Portit (2) 249,000 Rod (Dragger) (9) Rosi (4) Princess (5) Compute (2) Princess (3) Catherine T. (2) Red Jacket (2) Princess (3) Catherine T. (2) 249,000 Rosi (4) Rosi (4) Rosi (4) Rosi (4) Elizabeth B. (1) 72,200 Rush (2) Sacred Heart (8)	
Brookline (1)	100 000
California (2) 40,800 Pam Ann (2) Calm (2) 231,500 Phantom (2) Catherine B. (Dragger) (3) 62,800 Catherine B. (L.T.) (2) 10,200 Plymouth (2) Catherine T. (2) 82,500 Princess (5) Comet (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Dorchester (2) 178,500 Red Jacket (2) Princess (5) Comet (3) Racer (2) Catherine T. (2) 16,800 Racer (2) Comet (3) 289,600 Racer (2) Comet (3) 78,500 Red Jacket (2) Comet (4) Princess (5) Comet (5) Comet (6) Racer (2) Comet (7) Comet (7) Racer (8) Comet (8) Racer (10) Comet (10) Princess (10) Comet (10) Princess (10) Comet (10) Princess (10) Comet (10) Princess (10) Comet (11) Comet (10) Comet (11) Racer (10) Comet (11) Racer (12) Comet (12) Comet (13) Comet (13) Comet (14) Comet (14) Comet (15) Comet (1	180,300
Calm (2) 231,500 Phantom (2) Catherine B. (Dragger) (3) 62,800 Catherine B. (L.T.) (2) 10,200 Plymouth (2) Catherine B. (L.T.) (2) 12,000 Princess (5) Catherine T. (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) 249,000 Rodiester (2) 249,000 Rodiester (2) 249,000 Rodiester (2) 249,000 Rodiester (3) Princess (5) Red Jacket (2) Rodiester (4) Rodiester (5) Rodiester (6) Rodiester (7) Rodiester (8) Rodiester (9)	58,000
Cambridge (2) 203,400 Philip & Grace (1) Catherine B. (Dragger) (3) 62,800 Philip & Grace (1) Pligrim (2) Catherine B. (L.T.) (2) 10,200 Plymouth (2) Princess (5) Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Plymouth (2) Princess (5) Comet (2) 178,500 Racer (2) Dorchester (2) 178,500 Red Jacket (2) Princess (2) Princess (3) Red Jacket (2) Roma (Dragger) (9) Rosie (4) Princess (4) Rush (2) Rosie (4) Rush (2) Esther M. (2) 213,000 Sacred Heart (8)	160,000
Catherine T. (2) 82,500 Primcuta (2) Princess (5) Comet (2) 141,100 Quincy (2) Diana C. (11) 16,800 Racer (2) 178,500 Red Jacket (2) 249,000 Roma (Dragger) (9) Rosie (4) Right H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	191,500
Catherine T. (2) 82,500 Primcuta (2) Princess (5) Comet (2) 141,100 Quincy (2) Diana C. (11) 16,800 Racer (2) 178,500 Red Jacket (2) 249,000 Roma (Dragger) (9) Rosie (4) Right H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	90,300
Catherine T. (2) 82,500 Primcuta (2) Princess (5) Comet (2) 141,100 Quincy (2) Diana C. (11) 16,800 Racer (2) 178,500 Red Jacket (2) 249,000 Roma (Dragger) (9) Rosie (4) Right H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	255,400
Catherine T. (2) 82,500 Princess (5) Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Dorchester (2) 178,500 Red Jacket (2) Drift (2) 249,000 Roma (Dragger) (9) Elizabeth B. (1) 72,200 Roma (Dragger) (9) Emily H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	178,600
Comet (2) 141,100 Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Red Jacket (2) Drift (2) 249,000 Roma (Dragger) (9) Elizabeth B. (1) 72,200 Rush (2) Emily H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	18,400
Crest (3) 289,600 Quincy (2) Diana C. (11) 16,800 Racer (2) Dorchester (2) 178,500 Red Jacket (2) Drift (2) 249,000 Roma (Dragger) (9) Elizabeth B. (1) 72,200 Rosic (4) Emily H. Brown (1) 98,300 Sacred Heart (8)	,
Dorchester (2) 178,500 Red Jacket (2)	144,200
Dorchester (2) 178,500 Red Jacket (2)	232,200
Drift (2) 249,000 Roma (Dragger) (9) Rosie (4) Elizabeth B. (1) 72,200 Rush (2) Emily H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	232,200
Elizabeth B. (1) 72,200 Rosie (4) Emily H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	13,300
Elizabeth B. (1) 72,200 Rush (2) Emily H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8)	8,400
Emily H. Brown (1) 98,300 Esther M. (2) 213,000 Sacred Heart (8) St. Anna (1) Famiglia (1) 8,500 St. Bernadette (1)	164,400
Esther M. (2) 213,000 Sacred Heart (8) St. Anna (1) St. Anna (1) St. Brandette (1)	104,400
Salvet Healt (8) St. Anna (1) Famiglia (1) St. Bernadette (1)	9.000
Famiglia (1) 8.500 St. Bernadette (1)	
	8,900
77-11-1-12	98,900
Felicia (1) 122,500 St. Joseph (2)	51,400
Felicia (1) 122,500 St. Joseph (2) Florence & Lee (1) 52,800 St. Michael (2) Flying Cloud (3) 293,500 St. Nicholas (1) 4.0-688 (1) 4.100 Salvatore & Grace (2)	9,900
Flying Cloud (3) 293,500 St. Nicholas (1)	75,000
4-C-688 (1) 4,100 Salvatore & Grace (2)	50,000
4-C-688 (1) 4,100 Salvatore & Grace (2) 4-G-673 (2) 6,600 San Antonio II (2) 4-H-633 (1) 3,900 San Calogero (5) 4-H-623 (3) 16,900 Santa Rita (2) 4-R-830 (1) 3,700 Santa Ricalia (3)	12,900
4-H-630 (1) 3,900 San Calogero (5)	9,300
4-H-823 (3) 16,900 Santa Rita (2)	10,800
	16,000
Francis L. MacPherson (2) 146,200 Santina D. (3)	39,300
Savoia (2)	9,800
Gaetano S. (1) 65,400 Sunlight (2)	135,600
Surge (2)	163,300
Hilda Garston (2) 167,300 Swallow (1)	74,300
Sylvester F. Whalen (2)	218,300
J. B. Junior (1) 105,300	
Joseph & Lucia (1) 106,000 Texas (2)	137,800
Josephine F (3) 15 800 Thomas Whalen (2)	177,800
Josephine F. (3) 15,800 Thomas Whalen (2) Josephine P. II (4) 95,700 Triton (2)	175,400
Julie-Ann (1) 103,000	
Wave (2)	
W 1447 - NY - 101 - 04 000 - 277 - 12 101	262,700
	262,700 197,300
Winchester (2)	197,300
	197,300
Maine (1) 119,000 Wisconsin (3)	197,300 178,300 170,000
TAD,000 WIDCOIDII (3)	197,300

	IAFAA	IOKK	
Alvan T. Fuller (3)	123,500	Lady of Fatima (1) Lady of Good Voyage (1)	22,500 48,000
Buzz & Billy (2)	56,500	Liberty (1)	8,200
Dartmouth (1) Dolphin (2)	21,000 81,500	Marion & Alice (2) Mildred & Myra (1)	66,000 40,000
Edith L. Boudreau (3) Evelina M. Goulart (2)	80,500 98,500	Olivia Brown (2)	101,000
Felicia (2)	80,000	Rainbow (1) Richard Lance (1) Ronald & Mary Jane (2)	11,000 10,600 128,500
Gloria F. (2)	24,000	Rosalie F. (1)	31,200
Jenny (1) Joseph S. Mattos (3)	5,000 135,000	St. Rita (2) Santo Antonio (1)	43,100 18,500
Katie D. (2)	51,300	Tina B. (2)	121,500

Scallop Landings (Lbs.)

Florence B. (1)	850	Sally & Eileen (2) Susan (1)	6,675
Major J. Casey (1)	3,780	Susan (1)	800
Rockaway Belle (1)	4,167	Whaling City (1)	5,850

Batavia (Brighton

Courier (Elinor & Ethelina

Adele K. Andarte

Bernice

Cap'n Bi Cap'n Bi Christin Elva L. l Etta K. Eugene

Hazel S.

Mary R.

America Carl J. Carol & Carolyn Catheri Connie Five Sis Irene &

Lt. Tho Lisboa Mandal Mary A

Advent Annie I Arnold Arthur Austin Barbar

Barbar Barrac Bernic Capt. I

Dauntl Edith (Elva & Elva L Eugen

Ganne Gertru Gladys Growle

Harmo Hope I Huntir

J. B. J J. Hen Joan & Joan & John (Junoja

Libori

PORTLAND

		dings (Lbs.)	
Elinor & Jean (5)	93,900	Vagabond (5)	131,200
Ethelina (4)	131,700	Vandal (3)	158,600
Courier (2)	61,800	Thomas D. (1)	92,800
Batavia (1)	250,000	Sea King (2)	67,100
Brighton (1)	184,000	Silver Bay (2)	354,000
Agnes & Elizabeth (3)	154,900	Geraldine & Phyllis (2)	33, 2 00
Alice M. Doughty II (3	90,600	Polaris (1)	108,000

Adele K. (2)	18.100	Mary & Julia (1)	10.50
Andarte (1)	11,551	Monte Carlo (2)	20,26

WOODS HOLE

Bernice (1)	2,200	J. L. Stanley & Sons (1) Julia K. (2)	2,300 6,800
Cap'n Bill (1) Cap'n Bill II (2)	5,200 25,500	Madeline (1)	2,600
Christine & Dan (1)	2,700	Phyllis J. (1)	3,900
Elva L. Beal (1) Etta K. (3)	2,200 7,500	Priscilla (1) Priscilla V. (1)	700 15,200
Eugene H. (4)	65,600	Southern Cross (1)	4,000
Hazel S. (3)	6,500	Three Bells (1)	1,500
Sc	allop Lan	dings (Lbs.)	

100

800 800

000 500 300

200

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953

Mary R. Mullins (1)

STONINGTON, CONN.

Palestine (1)

7,076

America (5)	2,400	New England (2)	2,000
Carl J. (6) Carol & Dennis (5)	1,700 17,700	Old Mystic (3)	800
Carolyn & Gary (5) Catherine (3)	1,500 800	Pvt. Frank Kessler (4)	28,500
Connie M. (3)	1,300	Ranger (2)	7,500
Five Sisters (1)	300	Rita (1) Russell S. (4)	400 15,300
Irene & Walter (9)	7,100	Theresa (3)	17.900
Lt. Thomas Minor (1)	400	Theresa (3)	17,900
Lisboa (1)	200	Vagabond (1)	200
Mandalay (1)	500	William B. (6)	2,600

NEW BEDFORD

-			
Adventurer (2)	7.700	Madeline (1)	3,300
Annie Louise (2)	4,400	Magellan (2)	27,500
Arnold (2)	11,400	Maria-Julia (2)	8,700
Arthur L. (4)	57,900	Maris Stella (1)	19,500
Austin W. (1)	2,600	Mary & Joan (2)	48,200
	-,	Mary J. Hayes (2)	53,600
Barbara (3)	16,500	Mary M. (2)	4,000
Barbara M. (2)	32,800	Mary Tapper (2)	26,000
Barracuda (1)	3,500	Molly & Jane (4)	20,200
Bernice (1)	2,600	mony & same (4)	20,200
Delinee (1)	2,000	Nancy Lee (2)	7.300
Capt. Deebold (3)	53,800	Nautilus (2)	87,000
Carl Henry (3)	45.500	Noreen (2)	39,000
Chas, E. Beckman (3)	24,100	Noreen (2)	39,000
Christine & Dan (2)	11.800	Deville - II (0)	
Connie F. (1)	12,200	Pauline H. (2)	64,700
Connie F. (1)	12,200	Phyllis & Mary (1)	9,500
Dauntless (2)	00 000	Phyllis J. (3)	12,300
Dauntiess (2)	23,000	D-1	
THE CO.	4.000	Roberta Ann (3)	31,800
Edith (2)	4,200	Rosemarie V. (2)	42,300
Elva & Estelle (3)	21,500	R. W. Griffin, Jr. (4)	74,100
Elva L. Beal (1)	2,200		
Eugene & Rose (3)	23,400	St. Ann (1)	25,300
-		Santa Cruz (3)	13,000
Gannet (2)	85,000	Sea Hawk (3)	22,900
Gertrude D. (1)	13,500	Shannon (2)	8,400
Gladys & Mary (2)	39,900	Sister Alice (1)	4,000
Growler (3)	39,900	Skilligolee (2)	23,100
		Solveig J. (2)	41,900
Harmony (4)	26,000	Sonya (1)	12,000
Hope II (2)	12,100	Southern Cross (3)	22,400
Huntington Sanford (2)	8,400	Southern Cross (Vnyd) (1)	
,,,,	-,	Stanley B. Butler (2)	47,100
Invader (4)	61,400	Sunbeam (1)	8,900
Ivanhoe (3)	26,000		0,000
	_0,000	M 8 T (8)	40 800
J. B. Junior II (2)	9,600	Teresa & Jean (2)	49,700
J. Henry Smith (1)	3,600	Three Bells (1)	7,400
Joan & Tom (1)	9,200	Three Pals (3)	18,400
Joan & Ursula (2)	26,500		
John G. Murley (2)	64,500	Venture 1st (2)	21,900
Junojaes (3)	35,600	Victor Johnson (2)	22,800
Junojaes (3)	30,000	Viking (1)	23,700
Katie D. (2)	107,600	Virginia (2)	77,700
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Kelbarsam (2)	12,300	With-1 (0)	07 500
Tiboula C (B)	18 400	Whaler (3)	67,500
Liboria C. (2)	17,400	Winifred M. (2)	8,000



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6. Adjusting screws.

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Alpar (2)	14,400	Louis A. Thebaud (2)	11,000
Amelia (1)	7,500	Louise (2)	24,000
Antonina (1)	2,400	Lubenray (1)	6,700
Antonio (1)	2,600		0,100
		Malene & Marie (2)	19,500
B & E (1)	10,000	Marmax (2)	16,000
Bobby & Harvey (2)	17,000	Mary Anne (1)	9,250
Brant (1)	8,100	Mary Canas (2)	6,300
Bright Star (2)	21,500	Mary E. D'Eon (2)	12,900
		Mary J. Landry (1)	5,200
Camden (2)	20,500	Mary R. Mullins (1)	8,500
Carol & Estelle (2)	20,000	Moonlight (1)	10,800
Carolyn & Priscilla (1)	8,000		,
Charles S. Ashley (1)	5,000	Nancy Jane (1)	3,500
Christina J. (2)	6,000	New Bedford (2)	18,300
		Newfoundland (2)	19,250
Doris Gertrude (2)	17,300		
Dorothy & Mary (1)	6,500	Pearl Harbor (1)	8,200
		Pelican (1)	10,500
Eleanor & Elsie (2)	18,600	Porpoise (2)	14,800
Elizabeth N. (1)	10,500		
Ethel C. (2)	16,500	Red Start (2)	10,700
Eunice-Lilian (1)	3,100	Ruth Moses (2)	20,750
Fairhaven (2)	16,000	Sea Hawk (2)	4,100
Flamingo (3)	19,900	Sea Ranger (2)	14,100
Fleetwing (2)	13,000	Smilyn (2)	6,000
Friendship (1)	2,000	Sunapee (1)	5,600
Friendship (N.Y.) (1)	3,500	The Friars (2)	10,100
Gambler (1)	5,500	Ursula M. Norton (2)	18,900
		Vivian Fay (1)	18,000
Jerry & Jimmy (2)	25,600		
Josephine & Mary (2)	19,500	Wamsutta (2)	19,000
		Wm. D. Eldridge (2)	24,125
Kingfisher (1)	1,600	Wm. H. Killigrew (3)	11,400

GLOUCESTER

Alden (3)	15,500	Lucy Scola (2)	2,000
American Eagle (3)	18,500		
Ann & Marie (4)	2,500	Madame X (4)	5,500
Annie (5)	4,000	Manuel P. Domingos (1)	165,000
Annie II (3)	2,000	Margie L. (2)	2,000
Anthony & Josephine (8)	11,500	Maria Immaculata (7)	15,000
to coopmine (o)		Marietta & Mary (1)	2,500
Baby Rose (1)	85,000	Morre (0)	12,500
B. Estelle Burke (1)	11,000	Mary E. (5) Mary Rose (1) Mellena II (2) Minkette 1st (6)	5,500
D. Estelle Durke (1)	11,000	Morry Pose (1)	120,000
California (1)	0.000	Mary Rose (1)	1,500
California (1)	2,000	Mellena II (2)	
Cara Cara (1) Carlo & Vince (5)	147,000	Minkette 1st (6)	4,000
Carlo & Vince (5)	31,500	Mother Ann (1)	250,000
Catherine (3)	7,000		
Catherine Amirault (1)	90,000	No More (6)	4,500
Chebeague (2)	8.000	Novelty (9)	12,200
Cigar Joe (7)	42,000		
Clipper (1)	133,000	Ocean Life (1)	310,000
Curlew (1)	116,000	Occur and (1)	020,000
Curiew (1)	110,000	Richard J. Nunan (2)	16,000
Dawn (1)	1,000	Rosemarie (3)	14,500
Doris F. Amero (2)	92,000	Rosic & Gracie (1)	20,000
Doris H. (2)	2,500		
		Sacred Heart (6)	8,500
Eleanor (4)	21,500	St. Anthony (1)	137,500
Ellen B. (1)	15,000	St. Francis (4)	11,500
Eva M. Martin (5)	5.000	St. George (1)	182,000
Eva II (1)	500	St. John (8)	9,500
		St. Joseph (1)	6,000
Falcon (9)	13.500	St. Mary (4)	8,500
Famiglia (1)	3,500	St. Peter (2)	21,000
Florence & Lee (1)	182,000	St. Providenza (10)	16,500
Florence & Lee (1)	102,000	St. Victoria (1)	
Frances R. (6)	24,500		42,000
Frankie & Jeanne (6)	5,500	Salvatore (4)	2,500
		Salvatore & Grace (1)	17,000
Gertrude E. (4)	4,500	Santa Lucia (5)	6,500
		Sebastiana C. (2)	7,500
Helen B. (1)	13,000	Serafina (1)	2,000
Holy Name (5)	11,000	Company Mr (0)	8,500
Helen B. (1) Holy Name (5)		Serafina II (4)	20,000
Immaculate Conception	(3) 18,000	Serafina II (4) Serafina II (4) Superior (1) Swallow (1)	18,000
Irma Virginia (6)	7,500	Swallow (1)	200,000
Itima virginia (0)	1,000	Swallow (1)	200,000
Jackie B. (5)	29,000	Theresa M. Boudreau (1)	135,000
Jackie B. (3)			
Jackson & Arthur (1)	1,000	Trimembral (6)	6,000
J. B. Junior (6)	34,000		
Jennie & Julia (3)	10,400	Villanova (1)	252,000
Johnny Baby (5)	4,500	Vincie N. (4)	60,000
Josie II (3)	3,500	Viola D. (2)	2,000
		Virginia Ann (2)	2,500
Killarney (1)	130,000		
Kingfisher (1)	156,000	We Three (4)	5,000
annual (a)	100,000	White Owl (2)	1,500
Linda B. (8)	17.000	Wild Duck (2)	227,000
Little Flower (6)		WIIG DUCK (2)	221,000
	19,000	Transace (0)	101 000
Little Joe (5)	8,500	Yankee (9)	101,000

Scallop Landings (Lbs.)

Nellie-Pet (2) 19,800

Delaware Senate Gets Oyster Bill

Senator Curtis W. Steen of Sussex County introduced the first bill of the 1953 Delaware State Legislature January 7—a proposal to appropriate \$10,000 for oyster planting in waters of Indian River Bay. Nev

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New Jersey to Dredge Channel Entering Tuckerton Creek

The State Department of Conservation and Economic Development has announced the allocation of \$40,000 in State funds for the dredging of the channel in Little Egg Harbor Bay from Storey's Island to the mouth of the Tuckerton Creek. The channel has become badly filled during recent years, and is at present considered a navigational hazard for the many commercial craft that use the Tuckerton Creek. According to specifications, the channel will be dredged to a depth of 6' from low water

Local officials meanwhile are pressing their efforts to have the Tuckerton Creek dredged and deepened. Rep. James C. Auchincloss said he is soliciting Federal aid for the project.

Renovations Underway at Menhaden Plant.

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Renovations and addition of new equipment are continuing at the Aspen Fish Products plant in Wildwood, recently acquired by New Jersey Menhaden Products, Inc. The new owners contemplate increasing output at the factory by addition of modern equipment which will enable them to operate on a larger scale. Company spokesmen described the contemplated operation at the plant as the transforming of menhaden into fish meal, fish oil, and condensed fish solubles.

Among the pieces of equipment to be installed will be an evaporator, which will change waste water into a salable product, and at the same time, prevent pollution of the surrounding waters and reduce odors. Approximately 50 tons of fish will be processed per hour with the new equipment. The menhaden are unloaded hydraulically from the boats, using large pumps.

New Jersey Menhaden Products, Inc. will process fish from six independently-operated boats. Two have been in operation in the local area during the Summers, with the other four coming from Norfolk, Reedville and Morehead City, N. C. During the fishing season, which runs approximately from the end of May through October, the boats will be docked in local waters, either at Wildwood or Cape May, and will avail themselves of services and supplies provided at the local docks.

Urges Compromise on Striped Bass
Dr. Daniel Merriman of Yale University has advised New Jersey sportsmen to agree on a reasonable compromise for the limited netting of striped bass. For New Jersey to go all out for a "no netting" program would set an unfortunate precedent for other States on the coast. Merriman told sportsmen at a meeting called by the State Fish and Game Division.

The purpose of the session was to get the facts on the striped bass situation so that a regulatory bill could be introduced in the State Legislature. Merriman cited figures on the number of striped bass netted over the past 20 years, which he said indicated there are enough fish for both commercial and sports fishermen.

Striped bass spend their Winters in inland waters in New Jersey and turn up in profusion in the nets of the shad fishermen when the shad season starts Feb. 1. Until 1950, the shad fishermen were required by law to toss back the striped bass. However, in that year the Legislature passed a law allowing commercial fishermen to keep whatever striped bass they netted. The New Jersey League of Surf Anglers, however, is opposing this law, claiming the netting of striped bass will decrease the population of this species seriously.

License Fees Unchanged

Shellfish license fees for 1953 are the same as they were during the past year, according to Chief Franklin A. Gray of the State Division of Shell Fisheries. Chief Gray announced the fee for resident clammers as \$3.00; for tongers. \$7.50, and for non-resident clammers, \$4.50.

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The new Model D6-80 is a 6 cylinder, 80 H.P. Diesel engine suitable for workboats and pleasure craft.

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Texas Processors Use Graders To Sort Shrimp by Size

Texas shrimp producers and processors, who in the past have given little consideration to the desirability of separating and marketing shrimp according to size, have suddenly become grading-conscious. Crews on shrimp trawlers, formerly accustomed to piling heads-on shrimp back out of the way once they were cleaned of crabs and scrap fish, are now busy separating shrimp into three or more sizes before the trawler reaches port. Each size is then sold separately to the processor.

Processors, who in the past sold headed shrimp as they came, are now busy installing some type of grading equipment. In this way, tails are sorted into three or

four sizes.

Many shrimp producers' associations are requiring their members to furnish a more attractive, sanitary, and uniform product. Processors are complying to the best of their ability, and are installing shrimp graders to insure a uniform size shrimp in more uniform cartons.

Most of the quick-freeze plants have installed graders, as have a majority of the processors. It is reported that only small processors selling fresh shrimp for immediate local consumption continue to offer mixed shrimp sizes to

consumers.

Liberty Fish and Oyster Co. of Galveston has a new Sort-Rite grader, manufactured by Sort-Rite, Inc. of Harlingen, and is arranging for installation of a second unit. A shrimp grader by the same manufacturer is operating in the plant of Joe Grasso and Sons at Galveston. This plant now has two graders, the first having been installed several months ago.

A shrimp grader was installed more than a year ago by the Twin City Fishermen's Co-operative at Port Isabel, and has been sorting shrimp into four sizes at a rate of from 4,000 to 5,000 lbs. per hour. This grader was manufactured by the Dudley Machine Co. of Mountain View,

Calif.

The Brownsville Shrimp Exchange has installed a Sort-Rite shrimp grader, which separates the shrimp into four sizes.

Shrimp Landings Moderate

During the last two weeks in December and the first half of January little more than a token amount of shrimp and fish ordinarily are taken on the Texas coast. With the closing of the bays to large shrimp trawls on December 15, trawlers too small to shrimp in the open Gulf were converted to oyster dredging. Others had a complete overhaul of machinery and gear to be ready for early runs of white shrimp close in along the Gulf coastline and for the opening of the bays to large trawls on March 1.

Considering the season of the year, shrimp landings were moderate, with production of 7,920 barrels, 96 per cent of which were brownies (grooved shrimp), with the remainder white. Most of the shrimp were from 15-20

count, with some 20-30 count.

Night shrimping along the 20-fathom line paid off with from 500 to 1200 pounds per trip. The Port Isabel-Brownsville area led with 4,680 barrels; Aransas Pass received 2,361 barrels; with the remainder going to the Port Lavaca and Galveston areas.

The edible finfish catch was light, with prices to fishermen for most species from 10 to 25 per cent lower.

Darce Heads Fisherman's Co-operative

William Darce has been elected president of the Texas Fisherman's Co-operative Association, Inc. at Aransas Pass, succeeding Oscar Galjour. C. O. Roberts was made vice-president, and Wm. Sheppard, secretary-treasurer.

New directors elected include John Nelson, Anthony Boudin, James Stone, Jesse Zorn, Felix Bruney, Marion Starcic, and Ben Dupnik, all of the Aransas Pass area. The sh up at former

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The shrimp trawler "Alamo", owned by Mrs. Manuel F. Branco, tied up at shrimp plant of Twin City Co-op, Port Isabel, Tex. The boat formerly was owned by Mr. Branco, who died last July. He also operated the plant as Alamo Shrimp Co., and had previously been in the shrimp business at Brunswick, Ga. and Galveston.

Trawler "George A. Butler" Lost

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Capt. Henry Madden of Fulton lost his trawler George A. Butler off Aransas Pass recently. Fire broke out in the engine room and the crew, Shirley Cole, Cookie Cox, and Capt. Madden, abandoned ship after sending a message for help. They were picked up uninjured by another trawler working in the vicinity.

"Mary C" Joins Galveston Fleet

The Mary C recently has joined the shrimping fleet of the Liberty Fish and Oyster Co. at Galveston. Formerly used as a snapper boat, the Mary C was reconditioned and repowered with a 6-110 General Motors Diesel.

Two Boats Change Hands

The Wesco No. 4, recently purchased by the Brownsville Shrimp Exchange, has a new 82 hp. D8800 Caterpillar Diesel. The engine was installed when the vessel was overhauled.

The Vagabond, a shrimp trawler built recently by the Conrad Industries of Morgan City, La., has been purchased by the William Sheppard interests. She will be operated from the Texas Fisherman's Co-op Association at Aransas Pass.

Two New Shrimpers

The Diesel Engine Sales Co. of St. Augustine, Florida, has delivered two new shrimp trawlers to the W. L. Hardee Shrimp Co. of Brownsville. The Capt. Mitch and the Lady Mel are each 60' long and are equipped with 165 hp. General Motors Diesels.

Reed Assumes Duties as Chief Biologist

C. W. Reed is the new chief marine biologist at the Rockport marine laboratory, having assumed the duties of J. L. Baughman, who resigned from that office on January 1. Mr. Reed is from Austin, where he was with the Game Commission before accepting the position at the local laboratory.

Oyster Production Shows Big Increase

Oyster production at principal Texas ports last year totalled 2,768 barrels compared to 1,210 in 1951. The shrimp catch of 258,000 barrels in 1952 showed a drop of 34,000. However, the Port Lavaca-Palacios area reported a 2,000 barrel gain in shrimp last year. Salt-water fish landings totalled 484,000 lbs., a reduction of 23% from 1951.

Shrimp Association Elects New Officers

Walter Godfrey of Brownsville was elected as the new president of the Texas Shrimp Association at their annual meeting in Corpus Christi the first part of January. The other officers named were: vice-president, Morgan Daniel, Port Lavaca; secretary, Sydney Herndon, Corpus Christi; treasurer, John Faubion, Port Lavaca.

SHIPMATE GALLEY RANGE

Used on New Bedford Scallopers Lauren Fay and Ruth-Moses



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Vineyard Bailings

By J. C. Allen

The New Year has begun, and the second month has risen above the skyline. With the passing of time, it looks more and more to us as if some change is needed in the fishing industry, especially in local bearings.

The basic reason for our way of thinking is just this. It has been proven that no fishery can survive where there is no management of any kind. Only where some sort of management is possible is any domestic fishery holding its own. The reports from every quarter of the country show this.

We know that the talk today is of the introduction of management into bank-fishing through the International treaty. It's all to the good, no doubt. But there is bound to be a low spot which will have to be bridged before such management begins to pay a dividend. Only the haddock is under consideration now, yet the people who are engineering this thing know well that management must be extended to include other varieties before any benefit in the broad sense is realized.

Many localities and areas may suffer from this application, the degree varying, of course, according to the number of vessels, their size and scope of activities. But locally, where many towns have shellfish awaiting the improvement that applied management can bring, much can be done to cushion the impact of restrictions on netfishing and just perhaps, this could bring about a permanent change in the industry.

In Dukes County, which is the Island of Martha's Vineyard and the Elizabeth Islands, there are seven townships. Six of these are on the Vineyard and contain the bulk of the inhabitants. Five of these towns have shellfisheries producing quahaugs or hard clams, and scallops, with spurts when soft clams are or have been obtained in commercial quantity. The sixth has oyster beds, commercially operated. We believe that all of our commercial fishermen can be supported by these shellfisheries if they are properly handled and this, we submit, is the only thing affoat that offers such a promise locally.

Edgartown Has Valuable Shellfisheries

Twenty years ago the shellfisheries of Edgartown brought a quarter of a million dollars into the town annually. Today this income might well be doubled in some years. That this isn't true in every year is due to the fluctuation in the bay scallop catch. To some degree the same thing is true in four other towns, with the scallop take running to 50 to 70 and 80 thousand dollars in the space of three months time, and this without any actual care or cultivation of any kind. The quahaugs can be taken in all seasons, and they receive no attention so far as cultivation or protection is concerned.

In one town alone, Oak Bluffs, some attention has been paid to what might be called scallop culture. The process hasn't been carried too far for various reasons, but it has been carried far enough to show that there are distinct possibilities in it. The care of seed, its protection from natural forces and such enemies as can be seen and guarded against, including gulls, has made considerable difference in the take. It remains now, as it seems to us, to go a few steps farther.

Actual planting can be carried out on beds selected for their suitability. Possibly some action against seafowl might be necessary in certain cases. The horseshoe crab is a recognized enemy of various shellfish. It is not easily controlled, if it can be controlled at all; but the numbers can be reduced, and it is our own belief that the little green crab is more destructive than the horseshoe and certainly far more destructive to scallops than the starfish.

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Canadian Report

By C. A. Dixon

Discuss Inspection and Grading of Fish

An important meeting of Mirimichi fish exporters and members of the Mirimichi Fisheries Advisory Council with officials of the Department of Fisheries was held at Chatham, N. B. recently. Matters relating to the inspection and grading of smelts, oysters, and alewives were discussed, and a plea was made for cooperation among exporters, inspectors, and fishermen of the district for conservation of the species mentioned.

The meeting was arranged by G. Roy McWilliam, M.P., for Northumberland County, N. B. He told the meeting that a recent order-in-council setting up another grade for alewives, which the fish exporters feel will, settle many of the grading difficulties experienced last year, will become effective. As for smelt, Mr. McWilliam said the majority of the exporters believe that a recommendation advising that the size of extras and mediums be shortened by ¼" would result in a better market price.

The exporters and other fishermen agreed that small oysters should be returned to the Mirimichi beds after inspection. They also favored spot inspection in the area where oysters are produced. The bulk of the oysters taken are sold in Montreal, and criticism has come from the marketing areas to the effect that the Mirimichi oysters are not up to grade. The Department of Fisheries is contemplating the appointment of a qualified oyster inspector at Montreal to insure top condition of the oysters when they arrive.

Sardine Seiners Make Good Catches

Sardine seiners from Campobello struck luck in January when they caught 500 hogsheads of sardines the first week out in the New Year. Later catches fluctuated, but the production still goes on and practically all the fish taken are being sold to Canada's principal sardine cannery—Connors Bros., Ltd., of Black's Harbor, N. B. It had been hoped that a number of other factories would open, but the fish supply does not warrant action in this regard.

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Swarms of young pollock, usually referred to as "harbor pollock", struck in Leonardville waters during January. Seines were immediately put into use, with the result that in a single night a total of 75 hogsheads valued at \$17.50 a hogshead were caught by two or three groups. Individual boat catches ranged anywhere from 16 to 35 hogsheads.

Capt. Cyril Young of Leonardville was right on the spot with his sardine freighter and took aboard the entire 75 hogsheads for his first trip of the New Year to Lubec, Me., where the young pollock were sold to a cat and dog food factory.

Get High Prices for Fish

Campobello trawl fishermen are enjoying the benefits resulting from competition in fish buying at Wilson's Beach. Heretofore the local firm of Jackson Bros. bought practically all the landings and trucked them daily to Portland in the fresh state. Lately an Eastport, Me. concern has introduced an element of competition by buying a share of the landings, with the result that record prices are being paid the fishermen. These include the unusually high rate of 10ϕ a pound for haddock.

The trawl fleet is doing exceptionally well, but scarcity of bait has been a problem. All the 18 or 20 boats engaged in long-lining have done well, and the highliners as of the middle of January were Carroll Mitchell and his son, Burnham, who sold a day's catch for \$217. INCREASE
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Report Oyster Enemies Affect Florida Supply

Ovster enemies in Florida waters of high salinity completely kill off the oysters in vast areas that could otherwise produce a very favorable supply of this shellfish. This was the conclusion reached by Dr. Nelson Marshall, associate director of the Florida State University Ocean-ographic Institute, on the basis of research at the Institute's laboratory, located on the Gulf 40 miles south of Tallahassee.

Dr. Marshall, the former director of the Virginia Fisheries Laboratory at Yorktown, where he was in charge of the research program on Chesapeake Bay oysters, noticed the oysters along Alligator Harbor grew almost entirely in the intertidal

He knew oysters often grow bet-ter below the low tide line rather than in the intertidal zone, so he designed experiments to determine why the shellfish did not grow satisfactorily below low tide in many Florida coastal areas. Among other things, Dr. Marshall gathered several hundred single oysters and divided them into two equal parts which he spread over a favorable bottom below the low tide zone. Around one bed he built a fence of hardware cloth.

In two months almost all the oysters in the unfenced group had been destroyed. Those in the protected bed were healthy and growing. "What happened," Dr. Marshall said, "was all the oyster enemies that move about below the low tide line had come into the unprotected bed and feasted on the oysters.'

In his observations the oyster specialist found the oyster's major enemies in Florida waters include the common left-handed conch, the horse conch, the crown conch and the Gulf Coast boring snail whose damage has been so widely observed by oyster biologists.

"In addition," he said, "there is little doubt of the harmful work of stone crabs and mud crabs. These crabs seem to do most of their oyster eating at night. Also during the warmer nine months of the year, the stone and mud crabs are augmented by hordes of blue crabs.

It is Dr. Marshall's opinion that his experimental procedures, considered as a whole, have demonstrated that in many Florida localities predators are entirely responsible for the elimination of oysters.

Dr. Marshall points out excellent oysters have been grown in such areas by placing small "seed oysters" on wire-bottom trays which stand on posts driven into the bottom. The trays would be below the low tide line, but sufficiently out of reach of the common oyster enemies to eliminate serious loss of oysters.

Index to Advertisers

Albina Engine & Machine Works. 42 American Steel & Wire Division, U. S. Steel Co
Atlantic Equipment Co., Inc 50 W. A. Augur, Inc 44
Chris-Craft, Marine Engine Div 39 Columbian Bronze Corp
Danforth Anchors 33 Detroit Diesel Engine Div., General Motors Corp. 10
Eldredge-McInnis, Inc. 50 The Enterprise Mfg. Co. 40 Esso Standard Oil Co. 3 Evinrude Motors 7
Federal Propellers
General Motors Corp., Detroit Diesel Engine Div 10
Hallett Mfg. Co. 29 R. S. Hamilton Co. 50 The Harris Co. 50 Hathaway Machinery Co., Inc. 37 Geerd N. Hendel 50 Nap. J. Hudon 42 Hyde Windlass Co. 37
Ingersoll-Rand
George Kirby Jr. Paint Co 43
Liberty Dry Dock, Inc. 50 The Linen Thread Co., Inc. 52
Marine Compass Co 43 Marine Products, Inc 32 Lucian Q. Moffitt, Inc 32 Murphy Diesel Co 12
The National Supply Co. 6, 46 Newton Clutch Mfg. Co. 44 Nordberg Mfg. Co. 2
H. O. Penn Machinery Co., Inc. 34 Perkins-Milton Co. 37 Pettit Paint Co. 8 Pride Fisheries, Inc. 50
Red Wing Motor Co 44
The Safety Car Heating & Lighting Co., Inc., Marine Div
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